91

# BALLOTING LIST.

**WEDNESDAY EVENING, JANUARY 20, 1875.**

*TO BE PRESENTED IN PERSON ONLY.*

| Attendances at Meetings. Council. Ten Meetings. | Ordinary. Seven Meetings. | |
|---|---|---|
| | | *PRESIDENT.—One name to be returned.* |
| 10 | 7 | Robert James Mann, M.D., F.R.A.S. |
| | | *VICE-PRESIDENTS.—Four names to be returned.* |
| 9 | 6 | Charles Brooke, M.A., F.R.S., F.R.C.S. |
| 10 | 7 | Henry Storks Eaton, M.A. |
| 8 | 5 | *Rogers Field, B.A., Assoc. Inst. C.E.* |
| 7 | 5 | *Capt. Henry Toynbee, F.R.A.S.* |
| | | *TREASURER.—One name to be returned.* |
| 9 | 7 | Henry Perigal, F.R.A.S. |
| | | *TRUSTEES.—Two names to be returned.* |
| 1 | 1 | Sir Antonio Brady, F.G.S. |
| 1 | 0 | Stpehen William Silver, F.R.G.S. |
| | | *SECRETARIES.—Two names to be returned.* |
| 8 | 6 | George James Symons |
| 9 | 6 | John W. Tripe, M.D. |
| | | *FOREIGN SECRETARY.—One name to be returned.* |
| 9 | 7 | Robert H. Scott, M.A., F.R.S. |
| | | *COUNCIL.—Twelve names to be returned.* |
| 6 | 5 | Percy Bicknell |
| 6 | 4 | Charles O. F. Cator, M.A. |
| — | — | *Cornelius Benjamin Fox, M.D.* |
| 6 | 3 | Frederic Gaster |
| — | — | *William John Harris, M.R.C.S.* |
| — | — | *James Park Harrison, M.A.* |
| 10 | 7 | John Knox Laughton, M.A., F.R.A.S. |
| 8 | 7 | Robert J. Lecky, F.R.A.S. |
| 7 | 7 | William Carpenter Nash |
| 4 | 5 | Rev. Stephen J. Perry, M A., F.R.S. |
| — | — | *William Sowerby* |
| 3 | 3 | E. O. Wildman Whitehouse, F.R.A.S., Assoc. Inst. C.E. |

Assistant Secretary.

On the motion of Dr Tripe, it was resolved to request the House Committee to bring up a report on the duties and salary of the Assistant Secretary.

The Council then adjourned.

Robert James Mann

## January 20th 1875

### Meeting held at 25 Great George Street, S.W.

Present:- Dr. Mann, President, in the Chair,

| | | |
|---|---|---|
| C. Brooke | P. Bicknell | R. J. Lecky, |
| H. S. Eaton | A. Brewin | W. C. Nash |
| H. Perigal | C. O. F. Cator | H. Toynbee |
| G. J. Symons | R. Field, | W. Whitehouse. |
| J. W. Tripe | F. Gaster | |
| R. H. Scott | J. K. Laughton | |

Minutes.-

The Minutes of the last Meeting were read and confirmed.

The following letter from the Director of the Meteorological Office was read:-

"Meteorological Office,
"116 Victoria Street, London, S.W.
"11 January 1875

"Sir,

"In reply to yours of the 5th December I beg to say that the stations from which the Meteorological Office would wish Returns on Form "A" are

Aysgarth Calcethorpe
Buxton Dartmoor
Strathfield Turgiss

"It would also like if possible to obtain observations on the same Form and the same terms from a station in South Wales if such a station is available.

"I should be obliged if you would inform me what stations in connection with the Meteorological Society could supply mean Returns on the Form indicated as B.

"I may say that this Office will not be

"ready to commence the publication of the Tables in question for some months to come.

"I am, Sir,

"Your obedient Servant,

"Robert H. Scott.

"Director"

"The Secretary, Meteorological Society"

<u>Finance.</u> –

The Balance was reported to be

| | |
|---|---|
| At Bankers | 101 " 9 " 8 |
| In hands of Assistant Secretary | 20 " 0 " 0 |
| | £ 121 " 9 " 8 |

The Balance Sheet for the year ending Decr 31st 1874, showing a balance in favour of the Society of £16 " 13 " 8, was read (See Account Book.)

<u>Fellows in Arrear.</u> – The List of Fellows in arrear on December 31st 1874, was read, and the following names were ordered to be removed from the list, viz:

R. H. Cooke — J. Murray

W. H. Ford — J. Thurstans.

W. F. Gwinnell

<u>Resignations.</u> – The resignations of the following were read and accepted: –

H. Billson — W. J. Lancaster

E. J. Collingwood — J. M. Wilson.

<u>Correspondence.</u>

A letter was read from Mr J. H. Mackenzie stating that he had resigned some years ago, but that his Bankers have been paying his subscription up to the present year, and asking for the subscriptions overpaid to be returned.

It was resolved that the Treasurer be instructed to return the subscriptions overpaid, and that an application be sent to Dr J. I. Mackenzie for

arrears, who had been credited with the above subscriptions.

Communications.-

Received. – The following papers had been received:-

"On the Weather of Thirteen Summers".

By R. Strachan, F. M. S.

"A Paper suggesting the probability that gravitating influence is the cause of the perturbations (or the high and low barometers) of our atmosphere, and suggesting a system to enable us to calculate the coming gales and weather".

By Capt. J. W. Newton.

"On a Universal System of Meteorography".

By Prof F. Van Rysselberghe.

"On the Climate of Patras".

By Rev H. A. Boys.

On the recommendation of the Referees, Mr Strachan's, Prof. F. Van Rysselberghe's, and Rev H. A. Boys's papers were accepted and ordered to be read at the next Meeting.

The report of the Referee on Capt. Newton's paper being unfavourable, it was resolved that it be not accepted.

To be printed. – The following papers were ordered to be printed:-

"Atmospheric Pressure and Rainfall" (Abstract)

By J. C. Bloxam F. M. S.

"Remarks on West India Cyclones".

By F. H. Jahncke.

"Notes on the Weather experienced over the British Isles & the North West of France during the first few days of October, 1874".

By R. H. Scott, F. R. S.

"On a new self-registering Hygrometer".

By H. Negretti, F. M. S., and J. W. Zambra, F. M. S.

"Results of Meteorological Observations made at, and near, St. Paul's Island, in the South Indian Ocean":
By R. H. Scott. F.R.S.

"Description of a new patent portable Magnetic Anemometer, and Current Meter for maritime use"
By R. M. Lowne.

Reports.-

House Committee – The following Report of the House Committee was read and unanimously adopted:-

"The House Committee have to report that they have carefully considered the duties and salary of the Assistant Secretary; and they unanimously recommend that his salary be increased, from January 1st 1875, by the amount of £25 per annum, on the understanding that the Office hours for five days a week be from 10 until 5; the attendance on Saturdays ceasing at 2 p.m

"(Signed) Robert James Mann.
"Chairman"

Station Committee. Mr Symons verbally reported that he had inspected three more stations, viz.- Carmarthen, Marlborough, and Radyr, Cardiff.

It was resolved that Mr Symons be instructed to reply to the letter from the Director of the Meteorological Office (page 92) respecting the station in South Wales and the stations which can supply mean monthly Returns on the Form B.

Conference on Phenological Phenomena.

A Report of the Conference on Natural Periodical Phenomena was read and adopted, and ordered to be abstracted and prepared for reading at the next Ordinary Meeting.

Report of Council

The Report of Council to the Annual Meeting was read and, after several alterations, adopted.

The Council then adjourned.

Robert James Mann

## February 17th 1875

Meeting held at 25 Great George Street, S.W.

Present:– Dr. Mann, President, in the chair,

| | | |
|---|---|---|
| C. Brooke | J. W. Tripe | J. P. Harrison |
| H. S. Eaton | R. H. Scott | J. K. Laughton |
| R. Field | P. Bicknell | R. J. Lecky |
| H. Toynbee | C. O. F. Cator | W. C. Nash |
| H. Perigal | C. B. Fox | W. Sowerby |
| G. J. Symons | F. Gaster | W. Whitehouse |

Minutes.

The Minutes of the last Meeting were read and confirmed.

Mr. Symons reported that Mr. Evans, of Radyr, Cardiff, had found it impossible to take the 9 p.m. observations.

The following letter from the Director of the Meteorological Office was read:–

"Meteorological Office,
"116 Victoria Street, S.W.
"16. February 1875.

"Sir,

"In reply to your letter of the 25th ulto. I beg to inform you that this Office will be glad to receive observations on Form "A" from Carmarthen in addition to the stations already agreed upon.

"Further that the following stations for Form "B" are selected:–

| | |
|---|---|
| Pwllheli | Bath |
| Cheadle | Marlborough |
| Hillington | Crowborough Beacon |
| Audley End | |

and this Office will be glad to receive observations also on Form "B" from Llandudno, if the Society has a station there.

"If possible the returns should date from the 1st Jany. last.

"Yours faithfully,
"Robert H. Scott.
"Director.

"G. J. Symons Esq
"Secretary, Meteorological Society."

Mr. Symons read a letter from the Director of the Observatory of French College, Ireland, requesting to be affiliated with the Society by becoming one of the observing stations.

It was resolved that it be conditionally accepted, and that Mr. Symons be authorized to make the necessary arrangements.

Finance.

The Balance in hand was reported to be

| | |
|---|---|
| At Bankers | 187 - 1 - 2 |
| In hands of Assistant Secretary | 14 - 10 - 4 |
| | £ 201 - 11 - 6 |

Bills. The following bills were ordered to be paid.

| | |
|---|---|
| J. Smith & Co - printing Forms | £ 7 - 10 - 0 |
| Assistant Secretary - embossing 1500 wrappers | 6 - 6 - 0 |

Resignations. The resignation of the Rev. W. Tuckwell was read and accepted.

A letter was read from Mr. W. H. Preece ~~stating~~ that he wished the Bye Law to take effect.

It was resolved that Mr. Preece be informed that his resignation can only be accepted on payment of the subscriptions due.

Mr. Symons read a letter from the Rev. Chadwick Bates, who had been struck off the List of Fellows in June 1871, stating that through the death of several members of his family, he had not attended to business matters, and wished to know if he were still connected

with the Society; if so, he would pay any contribution that might be due from him.

It was resolved that he be allowed to compound or pay £2 for entrance fee and subscription, at his discretion, the back Numbers of the Journal being sent in the event of his compounding.

Correspondence.

The Foreign Secretary reported that letters had been received from the Honorary Members elected in June last, thanking the Society for the honour conferred upon them.

Communications

Received - The following papers had been received

"Ozone". By Francis E. Twemlow, F.M.S.

"On the Aurora Borealis". By H. Cleft.

"On the Annual Means of Thirteen Years' Observations at London". By R. Strachan, F.M.S.

"Notes on Sea Temperature Observations on the coasts of the British Islands". By R. H. Scott, F.R.S.

On the recommendation of the Referees Mr Twemlow's, Mr Strachan's and Mr Scott's papers were accepted, and ordered to be read at the next Meeting.

The Report of the Referee on Mr Cleft's paper being unfavourable, it was not accepted.

It was resolved that a paper by Mr T. Crawford on "Tremeschini's new Metallic Thermometer" be accepted for reading at the next Meeting, subject to the approval of a Referee.

Report

House Committee. - The following Report of the House Committee was read and adopted:-

"The House Committee beg to report that they have considered the advisability of removing the Society's Account from the present Bank to one

more convenient to the Office. They have unanimously resolved to recommend to the Council "that the Account of the Society be removed from Messrs. Martin & Co. with the approval of the Treasurer to such other convenient Bank as the Council and Treasurer may determine."

(Signed) "Robert James Mann.
"February 2nd 1875" "Chairman"

Mr. Scott was requested to enquire whether the Society could transfer the Account to the Burlington Gardens Branch of the Bank of England.

Election of Committees

House Committee – The President, three Secretaries, Messrs Brooke, Eaton and Field were elected Members of the House Committee.

Editing Committee – Dr. Mann, Mr. Cator and Mr. Scott, were elected Members of the Editing Committee.

Station Committee – It was resolved that the Form Committee be not reappointed, but that a Station Committee be nominated at the discretion of the House Committee.

General Business –

President's Address & Report of Council – It was resolved that 500 copies of the President's Address and the Report of the Council for 1874 be printed, stitched together and circulated.

Circulars to Medical Officers of Health – It was resolved that the Assistant Secretary be authorized to send circular invitations to Medical Officers of Health, appointed since July 1st 1873, to join the Society.

Circulars to other scientific men. – It was referred to the House Committee, with power to act, to consider the propriety of sending circular invitations to other scientific men.

Royal Cork Institution – It was resolved that Mr. Symons be instructed to communicate with the Managers of the Royal Cork Institution regarding the establishment of an observatory.

The Council then adjourned.

Robert James Mann

## March 17th 1875.

Meeting held at 25 Great George Street, S.W.

Present _ Dr. R. J. Mann, President, in the Chair.

C. Brooke, G. J. Symons, F. Gaster, H. S. Eaton, J. W. Tripe, J. K. Laughton, R. Field, R. H. Scott, R. J. Lecky, H. Perigal, C. O. F. Cator

Minutes.-

The Minutes of the last Meeting were read and confirmed

The following letter from the Agent of the Western Branch of the Bank of England was read:-

"Bank of England - Western Branch,
"Burlington Gardens. W.
"London. 2nd March 1875.

"Dear Sir,

"In reply to your letter of the 18th Ulto. I beg to say that on the receipt of a copy of a resolution of the Meteorological Society requesting me to open an account at this Branch, I shall have much pleasure in acceding to your wishes.

"We should also be supplied with a copy of a resolution authorizing the Treasurer's cheques on behalf of the Society to be honoured.

"I should be glad if Mr. Perigal would call here to register his signature, but if this be inconvenient a specimen forwarded from the Office shall suffice.

"I am, dear Sir,
"Yours faithfully,
"C. Francis."

"R. H. Scott Esq
"Meteorological Office.
"116 Victoria Street. S.W."

It was proposed by Dr. Tripe, seconded by Mr. Symons, and resolved. "That Col. Francis, the Agent for the Bank of England, Western Branch, be requested to open an account at that Bank for the Meteorological Society; and that the Treasurer, Henry Perigal Esq. be authorized to sign cheques on behalf of the said Society."

Finance.–

The Balance was reported to be

| | |
|---|---|
| At Bankers | 207 - 10 - 4 |
| In hands of Assistant Secretary, including stamps &c. | 12 - 4 - 2 |
| | £ 219 - 14 - 6 |

It was proposed by Dr. Tripe, seconded by Mr. Symons, and resolved – That the Treasurer be authorized to draw the balance now standing at Messrs Martin &Co., and to pay the same into the Western Branch of the Bank of England to the credit of the Society".

Bill. – Messrs Williams & Strahan's bill for printing No. 13 of the Quarterly Journal, £21-1-6 was ordered to be paid.

Correspondence.

A letter was read from the Secretary of the Royal Botanic Society conveying the thanks of that Society for 50 copies of the "Instructions for the observation of Phenological Phenomena".

Communications.–

Received – The following papers had been received, and on the recommendation of the Referees were accepted for reading at the next Meeting:–

"On certain small oscillations of the Barometer".
By the Hon. Ralph Abercromby, F.M.S.

"On the Errors of Low Range Thermometers".
By Francis Pastorelli, F.M.S.

To be printed. - The following papers were ordered to be printed:-

"Report of the Conference on Phenological Phenomena"

"On the Weather of Thirteen Summers":
By R. Strachan, F. M. S.

"On a universal system of Meteorography":
By Prof. F. Van Rysselberghe.

Report.

House Committee. - The following Report of the House Committee was read and adopted:-

"The House Committee beg to report that they have appointed a Station Committee, consisting of Mr Eaton, Mr Scott, and Mr Symons, with instructions to report to the Council.

"The Committee recommend that a Lad be engaged as an Assistant in the Office at a salary of not more than ten shillings a week.

"The Committee also recommend that Capt. Hoffmeyer's daily synoptic Charts be purchased at the sum of 12s/6d per quarter.

(Signed) Robert James Mann,
"March 2nd 1875 "Chairman"

It was arranged that the President and Mr Field submit a candidate at the next Meeting of the House Committee for appointment.

Observation Books. - It was resolved that the copyright of the small observation books, submitted by Mr Symons, should be entered at Stationer's Hall, and that the books should be sold at 2/6 each, or such other sum as the House Committee should decide.

The Council then adjourned.

Robert James Mann

April 21st 1875.

Meeting held at 25 Great George Street.

Present. – Dr. Mann, President, in the chair.
H. S. Eaton, J. W. Tripe, J. P. Harrison
H. Perigal, R. H. Scott, R. J. Lecky
G. J. Symons, P. Bicknell, W. Sowerby.

Minutes. –
The Minutes of the last Meeting were read and confirmed.

Finance.
The Treasurer reported the transfer of the Balance from Messrs Martin & Co. to the Western Branch of the Bank of England, in accordance with the resolution of the Council.

Balance. – The Balance in hand was reported to be

| | |
|---|---|
| At Bankers | 176-10-6 |
| In hands of Assistant Secretary, including stamps &c | 12-10-0 |
| Dividend on £200, New 3 per Cents | 2-19-6 |
| | £ 192"4"0 |

Bill passed – Messrs Williams & Strahan's bill for general printing, stationery &c, amounting to £29-5-9 was ordered to be paid.

Death. – The death of Mr. R. S. Stedman was reported.

Correspondence.
A letter was read from the Imperial Academy of Sciences, Vienna, asking the Society to turn its attention to the subject of the decrease in the amount of water in springs, streams, and rivers, and to contribute as far as may be possible towards the discovery of a remedy for checking such serious calamities as are likely to arise

therefrom: and also to assist the Academy in obtaining observations of the water level in flowing streams during a series of years.

It was resolved that a Committee be appointed, consisting of Messrs Eaton, Field, Scott and Symons, to consider and report upon the subject.

Communications.-

Received.- The following Papers were ordered to be read at the next Meeting:-

"Proposed modification of the mechanism at present in use for reading Barometers, so that the third decimal place may be obtained absolutely".

By R. E. Power, L.R.C.P.

"Remarks on some practical points connected with the construction of Lighting Conductors."

By R. J. Mann, M.D., F.R.A.S.

It was resolved that M. Louis Redier's new Barograph should be exhibited at this evening's Meeting.

To be printed.- The following papers were ordered to be printed:-

"Results of Meteorological Observations made at Patras, Greece, during 1873". By Rev H. A. Boys.

"Ozone". By Francis E. Twemlow, F.M.S.

(Abstract about half the length of the Paper.)

"On the Annual Means of Thirteen Year's Observations at London". By R. Strachan. F.M.S. (With Woodcuts)

Report.-

House Committee.- The following Report of the House Committee was received & adopted:-

"The House Committee beg to report that they have appointed, on the recommendation of the President and Mr Field, Thomas C. Evans,

aged 14 years, as an Assistant in the Office, at a salary of seven shillings a week, subject to the approval of the Council.

(Signed) "Robert James Mann.

"April 6th 1875 "Chairman"

Geographical Congress at Paris.- The Foreign Secretary laid on the Table papers relating to the proposed Geographical Congress to be held at Paris in August next. A discussion ensued, but no action was taken.

Publication of Observations.- It was resolved that the Station Committee meet on Tuesday, May 4th, at half past four, to consider the best plan for publishing the meteorological observations, and to report upon the same to the House Committee, the same day, at half past five. Refreshments to be provided for the Committees.

The Council then adjourned.

Robert James Mann

## May 19th 1875.

## Meeting held at 25 Great George Street.

Present. – Dr Mann, President, in the chair,

| | | |
|---|---|---|
| C. Brooke | P. Bicknell | J. P. Harrison |
| H. S. Eaton | C. O. F. Cator | J. K. Laughton |
| R. Field | F. Gaster | R. J. Lecky |
| J. W. Tripe | W. J. Harris | W. Whitehouse |
| R. H. Scott. | | |

Minutes.

The Minutes of the last Meeting were read and confirmed.

Finance.

The Balance in hand was reported to be

| | |
|---|---|
| At Bankers | 173 " 8 " 0 |
| In hands of Assistant Secretary | 12 " 0 " 0 |
| | £ 185 " 8 " 0 |

Correspondence.

A letter from the Permanent Committee of the Meteorological Congress at Vienna was read and referred to the Station Committee.

A letter from the Rev F. W. Stow, requesting that the Council would allow the Assistant Secretary to continue the discussion of the Solar Radiation Observations, was read and referred to the House Committee.

Communications. –

Received. – The following Papers had been received, and on the recommendation of the Referees were ordered to be read at the next Meeting: –

"On the Rainfall at Athens. By Prof. W. Raulin" (Translated from the Comptes Rendus by R. Strachan)

"On a proposed form of Thermograph"
By Wildman Whitehouse, F.R.A.S.

"On the Barometric Fluctuations in Squalls and Thunderstorms".

By the Hon. Ralph Abercromby F.M.S.

"Note on Solar Radiation in its relation to Cloud and Vapour".

By J. Park Harrison. M.A., F.M.S.

It was resolved, should any further papers be received for the June Meeting, that they be submitted to the House Committee.

To be printed. – The following papers were ordered to be printed:–

"Notes on Sea Temperature Observations on the Coasts of the British Islands"

By R. H. Scott. F.R.S.

"Errors of Low Range Thermometers"

By F. Pastorelli. F.M.S.

Reports.

House Committee. – The following Report of the House Committee was read and adopted:–

"The House Committee beg to report that they have received and adopted for submission to the Council, the accompanying Report of the Station Committee.

"The House Committee recommend for the approval of the Council, the names of the following gentlemen for approval as Honorary Members, viz

Dr Julius Hann,
Adjunct, Hohe Warte, Vienna.
Monsieur Emilien Renou,
Paris.

(Signed) Robert James Mann,
"Chairman".

"May 4th 1875".

## Report of the Station Committee.

The Station Committee having duly considered the general question of the utilization of the Records of the Society's Observers submitted to them by the Council, and having found it necessary in doing this to deal with certain incidental matters bearing upon the general question, have thought it well to embody their views upon these points into a series of definite and substantial resolutions, which are now submitted to the Council as their Report, with a recommendation for their adoption.

1. The limits of error in the reduction of barometer readings to be 0·005 in; in the calculation of the dew-point 0°3, and elastic force of vapour 0·005 in.

2. The Maximum and Minimum must always correspond with the 9 p.m. dry reading of the previous day. The highest and lowest readings to be entered as the maximum and minimum for each 24 hours ending 9 p.m.

3. When the air is saturated with moisture and the wet bulb reads higher than the dry, they are both to be considered equal at the dry bulb reading.

4. Readings of the minimum on grass, which are higher than the minimum in air, are to be left as they are, but noted to draw attention to the fact.

5. Readings which are found to be erroneous, and which the observer cannot explain, are to be altered in the Office, but not by the Observer, and entered in brackets.

6. When observations have been omitted, the blanks are to be filled up by interpolation; but no mean is to be taken of any column if more than three days' observations have been interpolated

in that column.

7. Instruments are to be obtained if possible for circulation among those observers whose barometers have not been compared, and which are supposed to be in error, for comparison without interrupting the observations.

8. Anything above 0·005 inch to constitute a day of rain.

9. The Observations to be reprinted yearly (with additions) from the Quarterly Weather Report.

10. Observations taken at 9 a.m. and 9 p.m. are received from the following stations:-

| Inspected | Non-Inspected |
|---|---|
| Audley End | Aberdeen |
| Bath | Forest Hill, |
| Buxton | Hillington |
| Carmarthen | Llandudno |
| Cheadle | Mansfield |
| Crowborough Beacon | Pwllheli. |
| Dartmoor | |
| Hawes | **Foreign** |
| Hestholme | |
| Louth | Cannes - France. |
| Marlborough | St. Johns - Newfoundland |
| Strathfield Turgiss | 9 am. & 5 p.m. Aghalee - Lurgan |

11. Observations which are taken only once a day (9 a.m.) are not to be published.

12. An annual summary to be prepared and printed with the Tables.

13. An observation which has not been taken punctually, is to be altered, if necessary, at the discretion of the computer in the Office and entered in brackets.

(Signed) Robert H. Scott.

May 4th 1875 Chairman

The Assistant Secretary submitted a Report entitled "Suggestions based upon a discussion of four months observations from the Society's Stations". It was resolved that it be referred to the House Committee to consider & report upon.

General Business.—

Testing of clinical thermometers.— Dr. Tripe called attention to the ~~unsatisfactory~~ present arrangements for testing clinical thermometers.— It was resolved that it be referred to the House Committee for consideration.

Lightning Conductors.— The President drew attention to the desirableness of appointing a Permanent Committee on Lightning Conductors, and stated that he would bring the subject before the Council another time.

The Council then adjourned.

Robert James Mann

June 16th 1875.

Meeting held at 25 Great George Street, S.W.

Present. — Dr. Mann, President, in the chair.

| | | |
|---|---|---|
| C. Brooke, | G. J. Symons, | J. K. Laughton, |
| H. S. Eaton, | J. W. Tripe, | R. J. Lecky, |
| R. Field, | R. H. Scott, | W. C. Nash, |
| H. Toynbee, | C. O. F. Cator, | W. Whitehouse. |
| H. Perigal, | J. P. Harrison. | |

Minutes. —

The Minutes of the last Meeting were read and confirmed.

Finance. —

The Balance in hand was reported to be

| | |
|---|---|
| At Bankers | £ 191 - 4 - 10 |
| In hands of Assistant Secretary | 6 - 6 - 8 |
| | £ 197 - 11 - 6 |

Bill passed. — Messrs Williams & Strahan's bill for printing No 14 of the Quarterly Journal amounting to £21-6-0 was ordered to be paid.

Communications. —

Permission was granted to Mr. Scott to exhibit Mr. H. M. Lowe's Graphic Hygrometer at this evening's Meeting.

To be printed. — The following papers were ordered to be printed, viz: —

"Remarks on some practical points connected with the construction of Lightning Conductors".

By the President (With Woodcut in the discussion)

"On certain small Oscillations of the Barometer".

By the Hon. Ralph Abercromby. F. M. S.

"Proposed modification of the mechanism at present in use for reading Barometers so that the third decimal place may be obtained absolutely".

By R. E. Power, L. R. C. P., (With Woodcuts.)

It was resolved that the House Committee be empowered to authorize, at their discretion, the printing of the papers to be read this evening.

Report.

House Committee. – The following Report of the House Committee was read and adopted:–

"The House Committee report that they have carefully considered the letter from the Rev. F. W. Stow requesting that the Council would allow the Assistant Secretary to continue the discussion of the Solar Radiation Observations.

"The Committee are of opinion that better results would be obtained if bright bulb thermometers in vacuo were used for comparison instead of the thermometers in the shade. They therefore recommend that some of the Society's Observers be requested to make these comparative observations, and that, if necessary, 2 bright bulb thermometers in vacuo be provided at a cost not exceeding £5.

"The Committee also recommend that the Assistant Secretary complete the discussion of the observations collected by the Rev. F. W. Stow up to June 30, 1875, and subsequently those received by the Society.

"The Committee have accepted a paper by Mr. Symons, "On a White Rain or Fog Bow", for reading at the next Ordinary Meeting.

"The Committee recommend that during the recess the Office be thoroughly cleaned and the ceiling whitewashed

(Signed) "Chas. Brooke
"Chairman

"June 1st 1875."

Mr Harrison suggested that two bright bulb thermometers should be used at each station, - one in the sun, and the other in the shade, - so as to eliminate the influence of the wind upon the bulbs of the thermometers.

This suggestion was adopted by the Council.

Permanent Lightning Rod Committee. -

The President read a communication to the effect that a Permanent Lightning Rod Committee be appointed to investigate and record accidents from Lightning, to inquire into the principles involved in the protection of buildings, to diffuse exact information regarding the best form and arrangements for Lightning Conductors, and to consider all phenomena of atmospheric electricity. That the Committee consist at present of the following gentlemen, viz:-

Mr Brooke
" Walker
" Symons
" Scott
" Preece
" Falkner, of Manchester.
" Gray, of Limehouse.
M. Melsens, of Brussels.
M. Francesque Michel, of Paris.
Prof. Zenger, of Prague.
and the Mover.

It was proposed by Dr Tripe, seconded by Mr Field, and resolved: - "That a Permanent Committee be appointed as a Lightning Committee to carry out the objects mentioned in Dr Mann's communication, that the persons named therein be the first Committee, and

that they be authorized to expend a sum not exceeding £2 for stationery and postage during the next four months."

The Council then adjourned.

Robert James Mann

October 20th 1875

Meeting held at 30 Great George Street. S. W.

Present. — Dr Mann, President, in the chair.

C. Brooke, J. W. Tripe J. P. Harrison.
H. Perigal R. H. Scott J. K. Laughton.
S. W. Silver P. Bicknell
G. J. Symons C. O. F. Cator

Minutes. —
The Minutes of the last Meeting were read and confirmed.

Finance. —
A balance sheet up to Oct. 20th showing a balance in hand of £130. 10. 6 was read and approved.

Bill passed. — Messrs Williams & Strahan's bill for printing No. 15 of the Quarterly Journal amounting to £18. 5. 0 was ordered to be paid.

Resignation. — The resignation of Mr W. Salmon was read and accepted.

Death. — Mr Scott reported the death of Mr T. H. M. Walrond.

Candidates for admission. —
The names of the following candidates for admission into the Society were read, and their certificates ordered to be suspended, viz: —
Sergt. J. Conroy R. E. A. H. Leycester,
Morris Jones. L. R. C. P. Sir David Salomons.

Correspondence. —
A letter was read from Major M. L. Taylor, Secretary of the Royal Artillery Institution requesting to be elected a Fellow in the place of Capt. King-Harman.
On the motion of Dr Tripe, it was resolved that Major Taylor be informed that his letter of Sept. 9th has been laid before the Council, and that his request has

been acceded to.

The Foreign Secretary read letters from Dr. J. Hann, and Mons. E. Renou, thanking the Council for their election as Honorary Members.

Communications.—

The following papers had been received, and on the recommendation of the referees were ordered to be read at the next Ordinary Meeting:—

"Some Remarks on the reduction of Barometric Readings, with a form of Table for combining the corrections for index error, temperature, and altitude".
By William Marriott, Assistant Secretary.

"On a continuous self-registering Thermometer".
By W. Harrison Cripps.

Mr. Symons reported that Mr. S. H. Miller would send in a paper within a week, "On a self-regulating Atmometer". — It was resolved that it be accepted subject to Mr. Brooke's approval.

Permission was granted to Mr. Scott to exhibit a complete set of instruments with thermometer screen &c, as used at the Russian Meteorological Stations; and Lamont's Atmometer.

Reports.—

House Committee.— The following Report of the House Committee was read and adopted:—

"The House Committee have to report that they have carefully considered the Memorandum of the Assistant Secretary, entitled "Suggestions based upon a discussion of four months' observations from the Society's Stations", and think that Mr. Marriott has done good service in noting the errors made by the observers in their returns. They recommend that an abstract of the Suggestions be inserted in the Annual Report.

"The Committee have to report that seven gentlemen have undertaken to make observations with the bright bulb thermometers in vacuo and to provide their own instruments; and that they have granted the use of thermometers to Mr D. G. Briggs and the Rev. C. H. Griffith.

"The Committee have had the ceiling whitewashed and a new carpet laid down in the Office at a total cost of £5; and have authorized a small further expenditure for repapering the walls and extending the green baize cover over the stored boxes.

"The Committee have ordered the following papers to be printed:-

"On a White Rain or Fog Bow". By G. J. Symons. F.M.S.
"On a proposed form of Thermograph". By Wildman Whitehouse, F.R.A.S. (With Woodcuts)
"On the Rainfall at Athens" By Prof. V. Raulin. (Translated from "Comptes Rendus" by R. Strachan F.M.S)
"On the Barometric Fluctuations in Squalls and Thunderstorms". By the Hon. R. Abercromby (With Woodcuts)
"Note on Solar Radiation in its relation to Cloud and Vapour". By J. Park Harrison. M.A., F.M.S.
"Lowe's Graphic Hygrometer". By R. H. Scott. F.R.S.

"The Committee have increased the Assistant Secretary's Assistant's salary from 7/- to 8/- per week from July 1st.

"The Committee have considered the question of testing clinical thermometers; and, with Dr Tripe's assent, recommend that no action be taken in the matter at present.

"An application having been received from the President of the Geographical Society of Cairo requesting an exchange of publications, the Committee recommend that it be agreed to for one year.

(Signed) "Robert James Mann.
"October 5th 1875." "Chairman"

New Stations. — Mr Symons reported that he should most probably be able to establish stations at Aberystwith, Hereford and Montgomery, before the end of the year.

It was resolved that the sum of £15 be placed at the disposal of Mr Symons for the inspection of these stations.

Motion. —

The following motion of which notice had been given by Dr Tripe was considered; — "That a Notice be printed and placed in the hands of Authors who read their own Papers, requesting them to confine themselves to the Paper itself, and not to interpolate observations, as the Council can only sanction that which has been approved of by the Referee".

After discussion the notice of motion was withdrawn, as Dr Tripe considered he had attained his object in calling attention to the matter, and on its being understood that in future the Chairman would exercise his discretion in the matter.

Catalogue. —

Mr Symons reported that all the books in the Library had been catalogued and that he had been through the slips himself and thought that if some one would look over the foreign titles, it would be ready for press. It was resolved that the slips be submitted to Mr Scott for examination of the foreign titles, and that an estimate for printing be procured, also that the advisability of making a charge for the Catalogue should be considered hereafter.

Government Action and Meteorology. —

Attention having been drawn to the Speech of Mr W. H. Smith in the House of Commons, on the

occasion of the passing of the vote to the Meteorological Office, in which he stated that a Commission would be appointed to consider the general question of Meteorology:– It was resolved, on the motion of Mr Silver, that a Committee, consisting of Mr Caton, Mr Eaton, and the Officers of the Society, be appointed to consider and report upon the general question of Meteorological Science and Government Action.

General Business.–

Chairs.– It was resolved that 6 Office Chairs be procured at a cost not exceeding £4-4-0.

The Council then adjourned.

Robert James Mann

## November 17th 1875

Meeting held at 25 Great George Street.

Present. – Dr Mann, President, in the Chair,

| | | |
|---|---|---|
| C. Brooke | G. J. Symons | F. Gaster |
| H. S. Eaton | J. W. Tripe | J. P. Harrison |
| H. Toynbee | R. H. Scott | J. K. Laughton |
| H. Perigal | C. O. F. Cator | W. C. Nash |
| S. W. Silver | C. B. Fox | W. Sowerby. |

Minutes. –

The Minutes of the last Meeting were read and confirmed.

Finance. –

The balance in hand was reported to be

| | |
|---|---|
| At Bankers | £84 - 19 - 7 |
| In hands of Assistant Secretary | 10 - 14 - 0 |
| | £ 95 - 13 - 7 |

Bill passed. – Messrs Eyre & Spottiswoode's bill for printing the Registrar General's Quarterly Returns amounting to £6"4"0, was ordered to be paid.

Death. – A letter was read from Mrs Winstanley stating that her husband, Mr W. Winstanley, had died in February 1873.

Correspondence. –

The President read a communication from M. Francisque Michel in which he stated that he would be very glad to represent the Society in Paris.

Communications. –

Received. – The following papers had been received, and on the recommendation of the Referees, were ordered to be read at the next Meeting: –

"On the Registration of Sunshine",
By R. H. Scott, F. R. S.

"On the Rainfall at Calcutta".

By R. Strachan F.M.S.

"Notes on the use of the Rotatory Thermometer (Thermomètre fronde) on board Ship".

By R. H. Scott, F.R.S.

It was reported that Mr Brumham would send in a paper "On the Moon's influence in connection with our extremes of atmospheric temperature", by the 30th instant. It was resolved that it be accepted subject to the approval of Capt. Toynbee.

Report.—

Station Committee.— The following Report of the Station Committee was read and adopted:—

"Mr Symons's Report on the Inspection of the stations of the Society is as follows:—

"With the exception of Hillington, near Lynn, Norfolk which is to be raised from the 3rd to the 2nd class, the whole of the stations of the 2nd order belonging to this Society have been visited, and fully reported upon. The total number now in perfect working order is 13, 5 others will be perfected by December 1st, 3 others have the instruments &c. in good order, but cannot arrange for 9 p.m. readings, 1 has found it impracticable to obey instructions, and 1 is waiting for equipment.

"The whole of the stations in operation are shown upon the accompanying map, those in perfect order being denoted by ● and the others by ○.

"The following Table shows the dates of inspection:—

| | | | |
|---|---|---|---|
| Aberystwith | August | 12, 1875 | Nov. 6. 1875. |
| Abingdon | | 1874 | Oct 29. 1875 |
| Audley End | Oct | 20, 1874 | |
| Bath | Augt. | 10. 1874 | Nov. 2. 1875 |
| Brighton | Oct | 12, 1874. | |
| Buxton | Oct | 23, 1874 | Nov. 10. 1875. |

| | | |
|---|---|---|
| Calcethorpe | Oct. 31. 1874. | |
| Cardiff | | Nov. 4. 1875 |
| Carmarthen | Dec 1874. | Nov 5. 1875 |
| Crowborough | Oct 22 1874 | June 29 1875 |
| Dartmoor | Augt. 6 1874 | |
| Hawes | Oct 1874 | |
| Hereford | | Nov 3 1875 |
| Hestholm | Oct 1874 | |
| Llandudno | | Nov. 9 1875 |
| Marlborough | Dec 1874 | Nov 1 1875 |
| Mellington Hall | | Nov. 11. 1875 |
| Pantyrch | Dec. 1874 | |
| Ramsgate | | Oct. 26. 1875 |
| Strathfield Turgiss | Sept. 21. 1874. | |

"The Appendix gives full reports respecting each station, with a ground plan of each drawn to a uniform scale.

"The total expenditure to the present date has been £67, and a further sum of about £2 will be required for the inspection of Hillington, making altogether about £69, towards which the Council have already voted £65.

"It would not be proper to conclude without mentioning that the expenses would have been much greater but for the marked hospitality of the observers."

"Mr. Scott has obtained the following estimate for printing the Tables in the Quarterly Weather Report:—

"Her Majesty's Printing Office E.C.
"15th Nov. 1875.

"Sir,

In reply to your inquiry, we have to state that we estimate the cost of reprinting from the standing types. 500 copies of the Tables referred to

would be about 5/- per octavo page.
"If printed on a page double the size, or quarto, the cost per page would be about 8/-.
"We ought to mention, however, that this price would be liable to increase should alterations be made in the types.

"We are, Sir,
"Yours obediently,
"Eyre & Spottiswoode.

"R. H. Scott Esq. F.R.S"

"The Committee recommend that the yearly Tables only of those stations that are furnished to the Meteorological Office be printed from the Quarterly Weather Report on Royal octavo paper, that they be paged in with the Journal, and that notes be added at the bottom of the Tables if necessary; also that the yearly Tables of the other stations (i.e. those not furnished to the Meteorological Office) be printed and paged in with the others.
"The Committee think it possible that if any Fellows wish to have the daily observations that are published in the Quarterly Weather Report, they can obtain copies in the form of an Appendix at the cost of printing and paper.
"The Committee also recommend that after the next number (No. 17), the Journal be published to date, and not be delayed for the Registrar General's Quarterly Returns; these to be inserted in the following number.
"The letter from the Permanent Committee of the Vienna Meteorological Congress, of May 5th 1875, has been read and referred to a Member of the Committee to report upon.

(Signed) "G. J. Symons,
"November 16th 1875 Chairman."

A further sum of £5 was voted to Mr. Symons for the balance due to him, and for the inspection of Hillington.

On the motion of Mr. Gaster, it was referred to the Station Committee to prepare a printed abstract of the conditions and plans of the inspected and authorized stations, in case of need for special service at a cost not exceeding £10.

Catalogue.—

An estimate from Messrs Williams & Strahan for printing 500 copies of the Catalogue at about £12-10-0 was read and approved.

It was resolved, on the motion of Dr. Tripe, that the Catalogue of the Society's Library be printed.

It was decided that the form in which the Catalogue is to be printed should be considered at the next Meeting of Council.

New President.—

Col. Strange and Mr. Eaton were nominated for the vacancy in the Presidentship, and are to be balloted for at the next Meeting of Council.

The Council then adjourned.

Robert James Mann

December 15th 1875.

Meeting held at 25 Great George Street.

Present. Dr Mann, President, in the chair.

| | | |
|---|---|---|
| C. Brooke | J. W. Tripe | J. P. Harrison |
| H. S. Eaton | R. H. Scott | J. K. Laughton |
| H. Toynbee | P. Bicknell | W. C. Nash |
| H. Perigal | C. O. F. Cator | W. Sowerby |
| G. J. Symons | F. Gaster | |

Minutes.– The Minutes of the last Meeting were read and confirmed.

Finance.–

The Balance in hand was reported to be

| | |
|---|---|
| At Bankers | 88 - 14 - 10 |
| In hands of Assistant Secretary | 15 - 18 - 0 |
| | £ 104 - 12 - 10 |

A statement of estimated Income and Expenditure up to Dec 31st was read and approved by the Council.

Bills passed.– The following bills were ordered to be paid:–

| | |
|---|---|
| Messrs Williams & Strahan – Quarterly Journal, No. 16 | £ 22 - 5 - 6 |
| " " Extra Tables in Nos 13 – 16 | 2 - 10 - 0 |
| J. Jennings – Refreshments at Meetings | 8 - 12 - 0 |
| Beadnore & Barnes – Rent for 12 months | 20 - 0 - 0 |

Resignation.– The resignation of Mr R. Cull was read and accepted.

Communications.–

To be printed.– The following papers were ordered to be printed, viz:–

"Some Remarks on the reduction of Barometric Readings, with a form of Table combining the corrections for index error, temperature & altitude".
By William Marriott, Assistant Secretary.

"On a continuous self-registering Thermometer".
By W. Harrison Cripps.

"On a self-regulating Atmometer."
By S. H. Miller, F. R. A. S. (With Woodcuts)

Reports.-

House Committee. - The following Report of the House Committee was read and adopted:-

"The House Committee have to report that the slips of the Catalogue of the books in the Library have been submitted to them for examination.

"They have resolved that certain portions be revised by Members of the Committee, and the whole finally completed by Mr. Symons.

"The Committee recommend that a Christmas box of 10/- be given to the Porter at the Institution of Civil Engineers, and 5/- to the Postmen.

"The Committee have resolved to increase the salary of the junior Assistant to 9/- per week from January 1st until April 1st and then to 10/- conditionally upon Mr. Marriott's continued approval.

(Signed) "Robert James Mann,
"December 7th 1875" "Chairman."

Government Enquiry Committee.-

This Committee submitted for approval by the Council a draft letter which they had prepared for transmission to the Board of Trade. After an addition proposed by Mr. Symons, it was resolved on the motion of Dr. Tripe, seconded by Mr. Cator, that the following letter be sent to the Board of Trade:-

"Meteorological Society
"30 Great George Street.
"Westminster S.W. Dec 20th 1875.

"Sir,

"In reference to a communication which was submitted to the Board of Trade on behalf of the

Society on February 4th 1874, we have the honour to ask your permission to state for the information of the Board that 20 meteorological observing stations have now been definitely organized by the Society. These several stations have been selected with a view to a systematic distribution of observers, have all been carefully inspected by an Officer of the Society, are now in full operation, and are, we believe, equal, if not superior, to any observing stations without self-recording instruments that have hitherto been established in the United Kingdom. The stations are all furnished with approved standard instruments, and plans of their arrangement, and of the details of their equipment will be given in the Annual Report, the originals being preserved in the Library of the Society. The returns of the stations are also reduced, carefully checked, and placed on record, and will be discussed and abstracted from time to time as opportunity serves. They will also be printed in full as an annual volume as soon as the finances of the Society enable it to bear the charge.

"We are anxious that these facts should be placed under the notice of the Board of Trade in consequence of the official inquiry into the relations of the State to the work of Meteorology, which it is understood is in progress under the auspices of one of the Secretaries of the Treasury; and we beg to state that, should the Committee desire it, we shall be happy at any time to nominate a deputation to wait upon them and give evidence as to the work of the Society.

"We have the honour to be
"Your obedient Servants
"Robert James Mann, President
"G. J. Symons
"John W. Tripe M.D. } Secretaries"

"Thomas H. Farrer Esq
"Permanent Secretary
"Board of Trade.
"Whitehall Gardens. S.W."

Catalogue.—
It was resolved that 750 copies of the Catalogue be printed in the following form:—

AGRICULTURE.

A

1 **Baker, J. G.**—Elementary Lessons in Botanical Geography. 8vo. *London* 1875.

2 **Buchan, A.**—Presidential Address delivered before the Botanical Society of Edinburgh, November 9th, 1871. 8vo. [22] *Edinburgh* 1871.

3 **Cooper, E. J.**—On the Potatoe Disease of 1845. 8vo. *Dublin* 1846.

4 **De Saussure, H. B.**—Voyages dans les Alpes, précédés d'un Essai sur l'Histoire Naturelle des environs de Genève. Tomes I.-II. 4to. *Neuchatel* 1779-86.

Officers and Council.—
On the motion of Dr Tripe, it was resolved that all old Members of Council who have attended four times, and two country Members who have attended twice shall stand as Members nominated for the new Council.

The following List of Officers and Council for the ensuing year was then adopted:—
(See next page)

Report of Council.
The Report of the Council to the Annual General Meeting, as drawn up by the Secretaries, was read and, after a few verbal alterations, adopted.

Circular Letter to Engineers and Surveyors.
It was resolved that this matter be referred

to the House Committee with power to act.

The Council then adjourned.

# BALLOTING LIST.

**WEDNESDAY EVENING, JANUARY 19, 1876.**

*TO BE PRESENTED IN PERSON ONLY.*

| Attendances at Meetings. Council. Eight Meetings. | Attendances at Meetings. Ordinary. Seven Meetings. | |
|---|---|---|
| | | *PRESIDENT.—One name to be returned.* |
| 7 | 7 | *Henry Storks Eaton, M.A.* .. .. .. .. .. .. |
| | | *VICE-PRESIDENTS.—Four names to be returned.* |
| 7 | 6 | *Charles O. F. Cator, M.A.* ... ... ... .. .. .. |
| 4 | 3 | Rogers Field, B.A., Assoc. Inst C.E. .. .. .. .. |
| 7 | 6 | *John Knox Laughton, M.A., F.R.A.S.* .. .. .. .. |
| 4 | 4 | Capt. Henry Toynbee, F.R.A.S. ... .. .. .. .. |
| | | *TREASURER.—One name to be returned.* |
| 7 | 6 | Henry Perigal, F.R.A.S. .. .. .. .. .. .. .. .. |
| | | *TRUSTEES.—Two names to be returned.* |
| 0 | 0 | Sir Antonio Brady, F.G.S. .. .. .. .. .. .. .. |
| 2 | 0 | Stephen William Silver, F.R.G.S. .. .. .. .. .. |
| | | *SECRETARIES.—Two names to be returned.* |
| 7 | 6 | George James Symons .. .. .. .. .. .. .. .. |
| 8 | 7 | John W. Tripe, M.D. .. .. .. .. .. .. .. .. |
| | | *FOREIGN SECRETARY.—One name to be returned.* |
| 8 | 7 | Robert H. Scott, M.A., F.R.S. .. .. ... .. .. |
| | | *COUNCIL.—Twelve names to be returned.* |
| 5 | 4 | Percy Bicknell .. .. .. .. .. .. .. .. .. .. .. |
| — | — | *Arthur Brewin, F.R.A.S.* .. .. .. .. .. .. .. |
| 7 | 6 | *Charles Brooke, M.A., F.R.S., F.R.C.S.* .. .. .. |
| 2 | 2 | Cornelius Benjamin Fox, M.D. .. .. .. .. .. .. |
| 5 | 5 | Frederic Gaster .. .. .. .. .. .. .. .. .. .. |
| 7 | 6 | James Park Harrison, M.A. .. .. .. .. .. .. .. |
| 8 | 7 | *Robert James Mann, M.D., F.R.A.S.* .. .. .. .. .. |
| 4 | 4 | William Carpenter Nash .. .. .. .. .. .. .. |
| — | — | *Rev. Thomas Arthur Preston, M.A.* .. .. .. .. .. |
| 4 | 4 | William Sowerby, F.L.S. .. .. .. .. .. .. .. .. |
| — | — | *Charles Vincent Walker, F.R.S.* .. .. .. .. .. |
| — | — | *George Mathus Whipple, B.Sc., F.R.A.S.* .. .. .. |

*N.B.—The names of newly proposed Members of Council are printed in italics.*

Robert James Mann

January 19th 1876.

Meeting held at 25 Great George Street.

Present. Dr Mann, President, in the chair.

C. Brooke H. Perigal P. Bicknell
H. S. Eaton G. J. Symons C. O. F. Cator
R. Field J. W. Tripe F. Gaster
H. Toynbee R. H. Scott J. K. Laughton.

Minutes.- The Minutes of the last Meeting were read and confirmed.

Letter from Board of Trade.- The following letter from the Board of Trade was read and ordered to be entered on the Minutes:-

"Board of Trade,
"Whitehall Gardens,
"E. 2874. " 28th Decr 1875.

"Sir,

"I am directed by the Board of Trade to acknowledge the receipt of your letter of the 20th instant, and to thank you for the information relative to the organization of Observing Stations by the Meteorological Society.

"A copy of your letter has been sent to the Meteorological Committee now sitting.

"I am, Sir,
"Your obedient Servant.
"T. H. Farrer."

"The President, Meteorological Society
"30 Great George Street, S.W."

Finance.-

Balance Sheet.- The Balance Sheet for the year ending December 31st 1875, showing a balance in favour of the Society of £36-12-2. was read.

Balance — The Balance in hand was reported to be

| | |
|---|---|
| At Bankers | £ 134 " 0 " 11 |
| In hands of Assistant Secretary | 8 " 10 " 0 |
| | £ 142 " 10 " 11 |

Fellows in Arrear — The list of Fellows in arrear on December 31st 1875 was read. The following names were ordered to be struck off the List of Fellows, if their arrears were not paid up by the end of the month; –

Rev. T. B. Armitstead  Dr J. J. Mackenzie
Rev. S. Barber  G. W. Usill.

Resignations. – The resignations of the following were read and accepted: –

W. R. Birt.  C. E. Trotter.
C. Cathcart  L. Turtle.
S. Courtauld

Candidates for Admission. –

The names of the following Candidates for Admission into the Society were read, and their certificates ordered to be suspend: viz: –

Frank C. Capel.
William Henry Watson.

Correspondence. –

Letter from Mr J. Bryan and Dr G. J. Hearder, were read, asking if it were not usual to supply observers with copies of the publications of the Society.

It was resolved that the Journal from January 1875 be sent to Mr Bryan and Dr Hearder; and that every accepted observer who is not a Fellow shall for the future receive a copy of the Journal

A letter was read from Mr Scott with reference to the delay in the payment for the returns, and the incompleteness of the observations from Hestholm.

It was resolved that Mr Scott's letter be referred

to the Station Committee for report.

A letter was read from the Rev. F. W. Stow stating that he was so much engaged that he would not be able to send any more returns at present.

It was resolved that Mr Stow's letter be also referred to the Station Committee for report.

Communications.–

Received.– The following papers had been received:–

"An Improvement in Aneroid Barometers".

By the Hon. Ralph Abercromby F. M. S.

"On Sixteen Months Rain at Bristol".

By W. F. Denning. F. M. S.

On the recommendation of the Referees it was resolved that Mr Abercromby's paper be accepted for reading, and that Mr Denning's be only announced at the Meeting.

Dr Mann stated that he would have a paper "On a description of the Rhé Electrometer of Marianani of Brussels"; it was resolved that this paper and one by Colonel Puckle on "Meteorology in India in relation to Cholera", be accepted subject to the approval of the Referees and the House Committee.

To be printed.– The following papers were ordered to be printed:–

"On the Registration of Sunshine".

By R. H. Scott. F. R. S.

"On the Rainfall at Calcutta".

By R. Strachan. F. M. S.

"Notes on the use of the Rotatory Thermometer on board Ship".

By R. H. Scott Esq F. R. S.

It was resolved that a brief abstract only be prepared by the Editing Committee and printed of Mr Brumham's paper "On the Moon's Influence

in connection with our extremes of Atmospherical Temperature".

Reports.-

House Committee.- The following Report of the House Committee was read and adopted:-

"The Committee being informed that there are only a few copies of the List of Fellows in stock recommend that a new List be printed.

"The Committee have approved the following circular letter to Engineers and Surveyors inviting them to join the Society:-

THE METEOROLOGICAL SOCIETY.

---

30 Great George Street,
Westminster, S.W.
February 1876.

Sir,

We have been instructed by the Council of the Meteorological Society to forward to you a copy of their Annual Report for the past year, and at the same time to mention, that they are anxious for increased countenance and support from Engineers and Surveyors.

There are so many points in which the researches of the Meteorologist bear upon the practical work of your profession, that it is only possible in this brief communication to mention a few of the more prominent, such as Rainfall, in connection with river economy, water supply, and drainage; the Force and Frequency of Wind, as affecting, under certain circumstances, its use as a motive power (for instance, the water supply of small communities), and as related to the stability of lofty buildings; and the distribution of Thunderstorms as regards the necessity for Lightning Conductors. With reference to this last subject, a Committee of the Society is now sitting, which has the privilege of the assistance of some Members of the Society of Telegraph Engineers, and of some of the most experienced Electricians of England, Belgium, and France.

We have only to add, that should it be agreeable to you to join the Society, on your filling the upper portion of the enclosed Balloting Paper and returning it to us, we shall have much pleasure in proposing your election as a Fellow.

We are, Sir,
Yours most obediently,

G. J. SYMONS,
JOHN W. TRIPE, M.D., } *Secretaries.*

(Signed) Robert James Mann.
Chairman

Jany 4th 1876

Paragraph 1.– It was resolved that 750 copies of the List of Fellows be printed.

Paragraph 2.– It was resolved that the printing of the circular and Report of Council be referred to the House Committee with power to act.

Printing of Observations.–

It was resolved that observations in detail from two selected stations, and the monthly abstracts from other approved stations be printed in the Society's Journal.

Meeting of the Permanent Committee of the Vienna Congress.

Mr. Scott announced the probability of a Meeting of the Permanent Committee of the Vienna Congress in London in April next, and hoped that it might be arranged to receive the Members at the Ordinary Meeting of the Society. The matter was postponed for further consideration.

Vote of thanks to the President.–

On the motion of Dr. Tripe it was resolved that the best thanks of the Council be given to Dr. Mann for the ability and courtesy displayed by him as President in the Chair.

The Council then adjourned.

Henry Storks Eaton

February 16th 1876.

Meeting held at 25 Great George Street.

Present:- Mr Eaton, President in the Chair.

C. O. F. Cator, G. J. Symons, F. Gaster,
R. Field, J. W. Tripe, J. P. Harrison
J. K. Laughton, R. H. Scott, Rev. T. A. Preston
H. Toynbee, P. Bicknell, C. V. Walker
H. Perigal, A. Brewin, G. M. Whipple.
Sir A. Brady

Minutes.-

The Minutes of the last Meeting were read and confirmed.

Finance.-

Balance.- The Balance in hand was reported to be.

| | |
|---|---|
| At Bank | £ 181 - 7 - 7 |
| In hands of Assistant Secretary | " 7 - 14 - 5 |
| | £ 189 - 2 - 0 |

Fellows in Arrear.- The Assistant Secretary reported that the Rev. S. Barber, who was 3 years in arrear, had paid up since the last Meeting; that Mr G. W. Elsill had called in and stated that his subscriptions had fallen into arrear owing to business matters, but that he had no wish to sever his connection with the Society and would pay up in a few months; and that no reply had been received from the Rev. T. B. Armitstead or Dr J. J. Mackenzie.

It was resolved that Mr Elsill be allowed six months to pay up his arrears, and that the Rev. T. B. Armitstead, and Dr J. J. Mackenzie be struck off the List.

Correspondence.-

Letter from Lord Sandon.- The following letter

from Lord Sandon was read:-

"South Kensington Museum. S.W.
"11th February 1876.

"Sir,

"It has been represented to the Lords of the Committee of Council on Education that the utility of the approaching Loan Collection of Scientific Apparatus would be much enhanced, both to the English and to the Foreign men of Science, who may be expected to visit it, if arrangements were made for explaining and demonstrating the method of using the various instruments, as well as for reading papers on, and discussing, scientific subjects.

"My Lords would be glad to afford every facility for carrying out this proposal, and they desire to suggest that, with this view, the various Learned Societies should organize a series of Conferences similar to the sectional meetings of the British Association for the advancement of Science.

"It has also been represented to My Lords that the Presidents and Councils of some of the learned Societies might not be unwilling to avail themselves of the existence of the collection to hold Conversazioni in this and the other galleries of the South Kensington Museum, for which special arrangements might be made.

"If these proposals should meet the views of the principal learned Societies, a series of Conferences and conversazioni might be organized of sufficient importance to induce men of science and teachers of this and other countries, to visit the collection at the time that they were

being held.

"Suitable rooms would be prepared for the purpose of the Conferences in the galleries where the collection of scientific apparatus is being placed, and the Science and Art Department would be prepared to defray the expenses of attendance and gas.

"I should feel obliged by your bringing this proposal before the Council of your Society, and informing me whether they would be prepared to take part in the scheme. Should they be willing to do so, arrangements will be made for a meeting of representatives of the Societies to arrange the details.

"It is thought that the Conferences should commence about the middle of May, and it is important that the necessary arrangements and announcements should be made as soon as possible. An early answer with regard to the Meteorological Society is therefore most desirable.

"I have the honour to be,
"Sir,
"Your obedient Servant,
"Sandon"

"The President of the
"Meteorological Society."

It was proposed by Sir Antonio Brady, seconded by Mr Scott, and resolved "That Lord Sandon's letter be referred to the House Committee with Sir A. Brady to consult with other Societies, and to report to a Special Meeting of the Council how, and to what extent, Lord Sandon's proposal can be carried out."

Loan Exhibition of Scientific Apparatus. The following

letter from the Director of the South Kensington Museum was read:-

"South Kensington Museum. S.W.
"10th February 1876.

"Sir,

"I am directed by the Lords of the Committee of Council on Education to transmit for your information the enclosed papers (Forms Nos 59 & 59a) relating to the approaching Loan Exhibition of Scientific Apparatus at South Kensington and to request you to have the kindness to announce the holding of the Exhibition at the next meeting of the Meteorological Society, and to ask any Members who may be willing to contribute, to furnish at their early convenience a description of the objects they propose to lend, on Forms similar to the enclosed (Forms Nos 64 & 76), which can be obtained on application to this Office.

"I have the honour to be,
"Sir,
"Your obedient Servant,
"P. Cunliffe Owen,
"Director S.K.M."

"The President of the
"Meteorological Society"

It was resolved that Mr Cunliffe Owen's letter be referred to the House Committee with power to act.

Communications.-

Received.- The following papers had been received and on the recommendation of the referees were accepted for reading:-

"Velocity of the Wind at Liverpool: Tabulation of Anemograms". By W. W. Rundell F.M.S. (To be read in April)

"On the Variations of Errors in Hydrometers"
By R. Strachan, F.M.S.
"On the deduction of Mean Results from Meteorological Observations": By L. F. Kämtz; Translated by J. S. Harding, F.M.S.
"On the Rhé-Electrometre of Marianani;" By R. J. Mann, M.D., F.R.A.S.

Mr Symons stated that he had just received from Mr F. E. Cobb, of the Falkland Islands, a summary of his observations for 1875. It was resolved that this, as well as a short paper by Mr Scott, viz:- "Contributions to the Meteorology of West Australia", be accepted subject to the approval of the referee.

Reports.-

House Committee.- The following Report of the House Committee was read and adopted:-

"The House Committee, on the recommendation of the Referee, have accepted Col. Puckle's paper "On Meteorology in India in relation to Cholera" for reading at the Ordinary Meeting on the 16th instant.

"They have also authorized the printing of the Plate to illustrate Mr Scott's paper "On the registration of Sunshine".

"The Committee have resolved that 1000 copies of the circular letter to Engineers and Surveyors be printed and circulated with the Report of Council (without the plates), prospectus and nomination paper, and that they be sent out in printed wrappers with embossed stamps.

"The Committee, having considered a list of books in the Library that require binding, recommend that £10 be spent for this purpose, a portion of this sum amounting to 18/6 having

been already laid out.

"The Assistant Secretary submitted a letter from a firm of solicitors asking for information respecting the weather in certain localities, and wished to know if he was at liberty to give information to persons who are not Fellows. The Committee recommend that it be an instruction to Mr. Marriott that no information be given to any one who is not a Fellow of the Society. They have directed a reply to be sent to the applicants that the information will be furnished as far as possible, to one of the partners, as a Fellow, who would be nominated for the purpose, the fee being £2.

"The Committee have adopted a form of address to Dr. Dove to be presented on the jubilee of his Doctor's Degree.

(Signed) "Henry Storks Eaton
"February 1st 1876" "Chairman"

<u>Station Committee</u>. – The following Report of the Station Committee was read and adopted:–

"The Station Committee have considered the letters referred to them.

"They recommend that returns from Hawes be forwarded to the Meteorological Office instead of those from Hestholm; and have directed the abstract forms to be sent as soon as practicable.

"They have also considered the question of the mode of computing humidity and have resolved that it be deduced from the mean dry bulb and mean elastic force of vapour.

(Signed) "Henry Storks Eaton
"Chairman"

"February 16th 1876"

Editing Committee.— Mr Scott reported that Mr Brumham had objected to the abstract of his paper that had been prepared by the Editing Committee; and read some of the correspondence that had passed on the subject.

Election of Committees.—

House Committee.— The President, three Secretaries, Dr Mann, Mr Bicknell and Mr Brooke, were elected Members of the House Committee.

Editing Committee.— Dr Mann, Mr Eaton and Mr Scott were elected Members of the Editing Committee.

Observation Committee.— It was resolved that the Decrease in Water Supply Committee be merged in the Observation Committee, which shall consist of Mr Eaton, Mr Scott and Mr Symons.

Government Enquiry Committee.— The President, three Secretaries, Dr Mann, and Mr Eaton were elected Members of the Government Enquiry Committee.

Address to Prof. Dove.—

The following Address to Prof. Dove was adopted:-

"To Professor Heinrich Wilhelm Dove &c &c

"Sir,

"The Meteorological Society, which has recently celebrated the twenty-fifth anniversary of its own existence, is unwilling to allow the occurrence of the Doctor's Jubilee of one of its Honorary Members to pass without tendering to him its sincere congratulations on the occasion.

"You have now lectured on our Science, or on cognate subjects, for one hundred University Terms, and the first paper which you printed: that namely "On the Fluctuations of the Barometer", appeared in 1826.

"That Meteorological Science has made progress

during the half century comprised between that period and the present day need hardly be stated, but what the Meteorological Society feels, and desires us to express to you is its recognition of the fact that much of this progress has been due to your personal investigations, characterized as they have been, by the boldness of the conceptions on which they were founded, and by the untiring assiduity with which they have been followed up.

"London this sixteenth day of February 1876.

"Henry Storks Eaton, President;
"G. J. Symons } Secretaries
"J. W. Tripe. M.D. }
"Robert H. Scott Foreign Secretary."

Reception of Honorary Members.-

The President stated that he would be glad if the Council would meet him at dinner at the Royal Aquarium at 5 p.m. on April 19th. It was resolved that the Council Meeting on that day be held at 4 p.m.

The Council then adjourned.

Henry Storks Eaton

## March 15th 1876.

Special Meeting held at 25 Great George Street.

Present:- H. S. Eaton, President, in the chair.

C. O. F. Cator. G. J. Symons R. J. Mann.
J. K. Laughton J. W. Tripe C. V. Walker.
H. Toynbee R. H. Scott.

The following Report of the House Committee and Sir A. Brady on Lord Sandon's letter was read and adopted:-

The Committee is of opinion that with our present knowledge respecting the objects of the proposed Conferences it is inexpedient that any sum be expended except out of income for the furtherance of the objects set forth in Lord Sandon's letter.

The Committee has directed a reply to be sent to Lord Sandon that the President and Council have considered the suggestions put forward in his letter of February 11th, and, so far as lays in their power, are willing to cooperate with other Societies for the furtherance of the objects in view; and that Dr Mann and Mr Scott, Members of the Council, are fully aware of the position and views of the Society and will be prepared to explain them in case of need.

(Signed) Henry Storks Eaton,
Chairman.

# March 15th 1876.

## Meeting held at 25 Great George Street.

Present:- H. S. Eaton, President, in the chair.

C. O. F. Cator, J. W. Tripe, R. J. Mann
J. K. Laughton, R. H. Scott, W. C. Nash
H. Toynbee, P. Bicknell, W. Sowerby
H. Perigal, C. Brooke, C. V. Walker
G. J. Symons, F. Gaster, G. M. Whipple.

Minutes.-
The Minutes of the Meeting on February 16th were read and confirmed.

Finance.-
Balance.- The Balance in hand was reported to be

| | |
|---|---|
| At Bank | £ 203 - 18 - 7 |
| In hands of Assistant Secretary | 3 - 14 - 0 |
| | £ 207 - 12 - 7 |

Bills passed.- Messrs Williams & Strahan's bills for printing No 17 of the Quarterly Journal, £15-0-9, and the List of Fellows and Report of Council, £17-2-0 were ordered to be paid.

Resignation.- The resignation of J. Evans Smith was read and accepted.

Deaths.- A letter was read from Mr E. Bloxam announcing the death of Mr J. C. Bloxam.
It was resolved that a letter of condolence be sent.
Dr Mann reported the death of Lieut-Col. A. Strange.

Correspondence.-
A letter was read from the Permanent Committee of the Vienna Congress requesting to be furnished with certain particulars relating to the Society's organization.
A reply, prepared by the Assistant Secretary was read and adopted.

Communications.-

To be printed. – The following papers were ordered to be printed:–
"On an Improvement in Aneroid Barometers".
By the Hon. Ralph Abercromby. F.M.S.
"Meteorology in India in relation to Cholera".
By Col. J. Puckle. M.S.C.
"Sixteen Months' Rain at Bristol".
By W. F. Denning. F.M.S. (In small type)

Received:– The following papers had been received and on the recommendation of the referees were accepted for reading:–
"On the Aspiration of the Dry and Wet Bulb Thermometers".
By S. H. Miller. F.R.A.S.
"Remarks on the present condition of Maritime Meteorology".
By R. H. Scott. F.R.S. (To be read in May)

Mr Scott was requested to prepare a paper on the Storm of March 12th for the next Meeting.

Report.–

House Committee. – The following Report of the House Committee was read and adopted:–

"The Committee has resolved that the Society exhibit, at the forthcoming Loan Exhibition of Scientific Apparatus, a complete equipment of a second order station, with specimen forms &c, and a set of the Publications of the Society. It has also directed a circular letter to be sent to the Fellows asking for the loan of instruments.

"The Committee, being informed that only a few copies of the Quarterly Journal remain in stock after distribution to the Fellows &c., recommends that 600 copies be printed instead of 500 as heretofore.

"No publications having been received from four

Institutions on the Free List, the Committee recommends that application be made for them in the proper quarter: and that the following be added to the List, viz:-

Royal Observatory, Edinburgh:
The Sanitary Record:
The Telegraphic Journal: and
Watford Natural History Society.

"The Committee has directed that a Dictionary and book of Synonymes be procured for the Office; and that a sheet of fluted glass be inserted in the door of the room at a cost not exceeding 15/-, permission being first obtained from the landlord.

"The Committee recommends that the Fellows be consulted by circular as to their opinion on the subject of altering the hour of the General Meeting from 7 p.m. to 8 p.m.; and that invitations to attend the Meetings be issued by the Society to persons interested in the subject of the papers to be read, and that the Authors be entitled to receive 6 copies.

"The Committee recommends that the Library Catalogue be issued gratis to the Fellows, and that a circular be enclosed asking for duplicate copies of books containing meteorological observations or subjects bearing on meteorology.

(Signed) "Henry Storks Eaton.
"March 7th 1876" Chairman."

It was resolved that the consideration of the question of altering the hour of the Ordinary Meeting be postponed till May.

Office Work.-

Mr Symons stated that owing to the time which

had been occupied in sending out the circulars &c. the routine work of the Office had got considerably in arrear. It was therefore proposed and carried that Mr. Marriott, and, if necessary, the lad engaged in the Office, should be allowed to take work home with them, and be paid at the following rate for overtime, Mr. Marriott, 1/3d per hour, and the lad 6d per hour: That this arrangement was only to extend to the date of the next Meeting.

Mr. Symons was also authorized to have the index of the Catalogue prepared at a cost of not more than twelve shillings and sixpence.

Reception of Honorary Members at the next Meeting.—

It was determined that no alteration be made in the mode of conducting the business, or as regards the refreshments afterwards.

General Business.—

Dr. Mann stated that Admiral Ommanney had requested him to present to the Society the Log kept on board H.M.S. "Eurydice" in the White Sea during the Crimean War.
It was resolved that it be accepted with thanks.

The Council then adjourned.

Henry Storks Eaton

April 19th 1876.

Meeting held at 25 Great George Street, at 4 P.M.

Present.- H. S. Eaton, President, in the chair.
J. K. Laughton, F. Bicknell, Rev. T. A. Preston
Sir A. Brady, J. P. Harrison, W. Lowenby
G. J. Symons, R. J. Mann, C. V. Walker.
J. W. Tripe.

Minutes.-
The Minutes of the two previous Meetings were read and confirmed.

Treasury Meteorological Committee.-
The following letter was read:-

"1 Whitehall, S.W.
"April 15th 1876.

"Dear Sir,
"I am desired by the Chairman of the Meteorological Committee to ask you if you on behalf of the London Meteorological Society would be good enough to suggest the name of some gentleman who would give evidence before the Committee on the subject of future Meteorology and its treatment.

"Yours truly,
"J. G. Fanshawe,
"Dr Mann. Secy.

"The Committee will meet again on the 26th and I should be obliged if you could favour me with a gentleman's name and address in time to arrange for his attendance at Old Palace Yard on that day."

On the motion of Dr Tripe, it was resolved that Dr Mann be nominated to attend the Committee for examination on behalf of the Society.

On the motion of Dr Mann, it was resolved that a Meeting of the President, Secretaries and

Vice-Presidents of the Society be called at 2 p.m. on Saturday, to advise and instruct Dr. Mann in reference to the evidence to be submitted to the Treasury Committee.

Finance.–

Balance.– The Balance was reported to be

| | |
|---|---|
| At Bank | £ 186 - 11 - 6 |
| In hands of Assistant Secretary | 5 - 3 - 3 |
| | £ 191 - 14 - 9 |

Bills passed.– The following bills were ordered to be paid:–

| | | |
|---|---|---|
| Williams & Strahan – General printing | | £ 9 - 12 - 3 |
| Extra Work – W. Marriott | 4 - 2 - 6 | |
| " T. C. Evans | 1 - 8 - 9 | |
| " H. McLaughlin | 1 - 1 - 0 | |
| " G. J. Symons – Catalogue | 12 - 6 | 7 - 4 - 9 |

Correspondence.

Prof. Dove.– The following letter was read:–

"The Meteorological Society in London has kindly contributed to the honour and pleasure which I have experienced on the occasion of my Doctor's Jubilee by its congratulations. I can only beg you to accept my heartfelt thanks for them. The greatest consolation which a man like myself can feel when he sees his powers failing is to find that learned Societies like yours are prepared to carry on the work, which might otherwise come to an end with the life of a single person, and so to secure for the future the progress of our science.

H. W. Dove,

Professor at the University Berlin."

Col. Dickins.– The following letter was read and ordered to be entered on the Minutes:–

"Government of India.
"Public Work Department,
"Fort William. Feby 28. 1876

"To the President,
"Meteorological Society, London
"Sir,

"I am directed by His Excellency the Governor General in Council to state that your paper on "practical points connected with the construction of Lighting Conductors; published at No. XXXVIII of Vol II of the records of the Meteorological Society has been read with great interest, and has been reprinted and circulated for the information and guidance of the officers of the Public Works Department of the Government of India.

"I have the honour to be, Sir,
"Your most obedient Servant,
" H. Dickins, Colonel R. A.
"Secretary to the Government of India."

Lieut. Armit. – A letter was read from Lieut Armit stating that he was forming an expedition to New Guinea to observe the motions of the upper currents of the atmosphere at stations on either side of the elevated range of mountains in that Island, and that should the Society deem it advantageous to send one of its Fellows with him, the Association would provide for his maintenance subject to its Rules and Regulations.

No action was taken in the matter.

F. T. Bass. – A letter was read from Mr Bass stating that if a few notes and observations taken on the West Coast of South America relating to winds, weather, currents &c. would be of any available use to the Society, he would

place his spare time at its disposal.

It was resolved that the offer be accepted with thanks.

Communications

To be printed.– The following papers were ordered to be printed:–

"On the Rhé-Electrometre of Marianani".
By R. J. Mann. M.D. F.R.A.S. (With Woodcuts)

"On the Variation of Errors in Hydrometers".
By R. Strachan. F.M.S.

"On the Deduction of Mean Results from Meteorological Observations". By L. F. Kämtz.
Translated by J. S. Harding. F.M.S.

"Summary of Observations made at Stanley, Falkland Islands, during 1875".
By F. E. Cobb.

"Contributions to the Meteorology of West Australia".
By Robert H. Scott. F.R.S.

Received.– The following papers had been received and, on the recommendation of the Referees, were accepted for reading:–

"Remarks on the present condition of Maritime Meteorology".
By R. H. Scott. F.R.S.

"Report on the Meteorology of Mozufferpore, Tirhoot, for 1875".
By C. H. Pearson. F.M.S.

"On the Mean Temperature of every day from 1814 to 1873".
By James Glaisher. F.R.S.

"The Climate of Scarborough".
By F. Shaw. F.M.S.

"New Wind Chart".
By Lt.-Col. G. E. Bulger. F.M.S.

"Average Weekly Temperature of 30 years for Cardington."
By J. McLaren, F.M.S.

Report.-

House Committee. - The following Report of the House Committee was read:-

a "The Committee recommends that the sum of £50 be invested in the New 3 Per Cents.

b "The Committee, having considered the present state of the Society's work, recommends, (1) that Mr Scott arrange for the copying of the returns from Hawes for June to December last; (2) that Mr Harrison be requested to undertake the discussion of the Solar Radiation Observations: and (3) that the reduction of the observations from Rossinière for 1874 and 1875, and from the Falkland Islands for 1875, be postponed.

c "The Committee has increased the salary of the Junior Assistant to 10/- per week from April 1st.

d "The Committee recommends that the following be added to the Exchange List:-

Manchester & Salford Sanitary Association.
Society of Arts.

(Signed) "Henry Storks Eaton.
"April 4th 1876" "Chairman"

Paragraph a. was adopted.
Paragraph b. (1) was adopted.
Do (2.) Mr Harrison having objected to the mode of taking the solar radiation observations, he was requested to attend the next Meeting of the House Committee.
Paragraphs c and d. were adopted.

Mr Symons having reported on the present state of the Society's work, it was resolved that

the matter be referred to the House Committee to report upon at the next Meeting.

The Council then adjourned.

Henry Stokes Eaton

May 17th 1876.

Meeting held at 25 Great George Street.

Present:– H. S. Eaton, President, in the chair.

C. O. F. Cator — R. H. Scott — R. J. Mann.
R. Field. — A. Brewin — W. C. Nash
H. Toynbee — F. Gaster — C. V. Walker
G. J. Symons — J. P. Harrison — G. M. Whipple
J. W. Tripe

Minutes.–
The Minutes of the last Meeting were read and confirmed.

Dinner.
On the motion of Dr Tripe it was resolved that the best thanks of the Council be presented to the President for his kindness in providing the dinner on April 19th.

Finance.–
Balance.– The Balance in hand was reported to be

| | |
|---|---|
| At Bank | £164 - 8 - 0 |
| In hands of Assistant Secretary | 12 - 6 - 3 |
| | £ 176 - 14 - 3 |

Bills passed.– The following bills were ordered to be paid:–
E. Stanford – Lithographing plans of stations £10 - 9 - 0
Williams & Strahan – Printing Quarterly Journal £26 - 16 - 0

Death.– A letter was read from Mr Plummer announcing the death of Mr John Aird.

Communications.–
To be printed.– The following papers were ordered to be printed, viz:–
"Velocity of the Wind at Liverpool: Tabulation of Anemometric records." By W. W. Rundell, F. M. S.
(The question of the woodcuts was postponed till the next Meeting.)

"On the Aspiration of the Dry and Wet Bulb Thermometers". By S. H. Miller, F.R.A.S.

Received.— The following papers had been received and on the recommendation of the Referees were accepted for reading, viz:—

"Notice of upward currents during the formation and passage of Cumulus and cumulo-stratus clouds". By Rev. J. Crompton, M.A., F.M.S.

"Suggestions on certain variations, annual and diurnal, in the relation of the Barometric Gradient to the Force of the Wind". By Rev. W. Clement Ley, M.A., F.M.S.

Reports.—

House Committee.— The following report of the House Committee was read:—

"The Committee having discussed at length the subject of Office work, is of opinion that it is expedient that overtime should be continued until the arrears of work are overtaken, and submits to the Council that a further vote on that account be made.

"The Committee is further of opinion that in future, before ordering new investigations or the undertaking of fresh work, an estimate of the probable time required for its execution and the cost thereof be submitted to and considered by the House Committee and reported to the Council.

"A letter having been received from the Secretary of the Royal Astronomical Society stating that the Council do not wish to exchange publications with this Society, the Committee has removed the name from the Exchange List.

(Signed) "Henry Storks Eaton.
Chairman"

Paragraph 1 was adopted.
Paragraph 2 was adopted after the addition of the following words "to the House Committee and reported to the Council".
Paragraph 3. A further letter from the Secretary of the Royal Astronomical Society was read stating that if the Council were still anxious that the Monthly Notices should be presented to the Society and would send him a letter requesting them, he would be most happy to lay it before the Council and he had no doubt that they would accede to the request.
It was resolved that application be made for the Monthly Notices.

Treasury Meteorological Committee.
Minute of Meeting, April 22nd 1876.

"A Meeting of the President, Vice-Presidents, and Secretaries, was held at 30 Great George Street, on Saturday, April 22nd, at which Dr Mann submitted the draft evidence which he proposed to lay before the Treasury Meteorological Committee. This was fully discussed and approved by the Meeting after a few additional suggestions had been incorporated therewith."
Dr Mann stated that he had every reason to be satisfied with his examination by the Treasury Meteorological Committee, which he thought was very favourable to the Society. He hoped shortly to have copies of his evidence, when they would be placed in the hands of the Council.

Alteration of time of Meeting.-
It was resolved that the following be printed

159.

on the next Notice of General Meeting:-
"Please reply Yes or No to the following question
"Is it desirable to alter the hour of Meeting
after January next from 7 p.m. to 8 p.m.?"
"Please fill up, tear off and return this form."

The Council then adjourned.

Henry Hooks Eaton

June 21st 1876

Meeting held at 25 Great George Street.

Present:- H. S. Eaton, President, in the chair.
C. O. F. Cator, J. W. Tripe, R. J. Mann,
J. K. Laughton, R. H. Scott, T. A. Preston,
H. Perigal, C. Brooke, G. M. Whipple.
G. J. Symons, F. Gaster.

Minutes.-
The Minutes of the last Meeting were read and confirmed.

Finance.-
Balance.- The Balance in hand was reported to be

| | |
|---|---|
| At Bank | £ 176 - 12 - 11 |
| In hands of the Assistant Secretary | £ 1 - 15 - 5 |
| | £ 178 - 8 - 4 |

Resignation.- The resignation of Capt. J. Sladen was read and accepted.

Correspondence.
W. H. Watson.- A letter was read from Mr W. H. Watson suggesting the desirability of publishing abstracts of papers on meteorological subjects in the Quarterly Journal.
This was discussed by the Council but no action was taken in the matter.

Communications.-
Received.- The following paper had been received and on the recommendation of the referee was accepted for reading to-night, viz:-
"De la Vulgarisation par la Presse des observations météorologiques". By Harold Tarry, F.M.S.
To be printed.- The following papers were ordered to be printed, viz:-
"Remarks on the present condition of

Maritime Meteorology". By R. H. Scott. F.R.S. (With Plates)
"On the Meteorology of Mozufferpore for 1875".
By C. H. Pearson, F.M.S. (Without Tables).
"New Wind Chart". By Lt-Col. G. E. Bulger. F.M.S.
The question of the printing of Mr Scott's paper "On the Storm of March 12th 1876"; Mr Glaisher's "On the Mean Temperature of every day from 1814 to 1873"; the woodcuts for Mr Rundell's paper and the papers to be read this evening, was referred to the House Committee with power to act.

Report.

House Committee. – The following report of the House Committee was read and adopted:–

"The Committee having enquired into the subject of Office work at great length, are of opinion that the time of the Officers is fully occupied and that there is no margin for contingencies. They consider it desirable that the reduction of the returns should be somewhat curtailed and recommend that the dew-point and other hygrometrical values be calculated from the monthly averages instead of from the daily observations, excepting those supplied to the Meteorological Office for publication in extenso. Also that any observations made in Europe out of the British Isles be not reduced, but that the results may be communicated to the Society in the form of a paper.

"The Committee hope that by the adoption of these measures the present staff will be able to perform all the Office work without having recourse to assistance.

"The Committee have resolved that the daily observations from Hawes and Strathfield

Turgiss be printed in full in the Quarterly Journal.

"Applications to observe having been received from Dr J. Adam. Caterham; Rev. E. V. Pigott, Leaton, Shrewsbury; and Mr T. Peck. Ruskington, Sleaford (forwarded by the Astronomer Royal), the Committee recommend that these gentlemen be accepted as observers subject to the instruments and stations proving satisfactory on inspection.

"Mr Harrison has communicated to the Committee a report on his examination of the Solar Radiation Observations for the past two months.

"A letter having been received from Mons. A. Lancaster, of the Royal Observatory, Brussels, acknowledging the receipt of Nos 10 to 14 and 16. of the Quarterly Journal, and asking to be supplied with as complete a set as possible of the publications of the Society, the Committee recommend that the Journals be sent, and that he be informed that the Proceedings are out of print.

"(Signed) Henry Storks Eaton."

"June 6th 1876" "Chairman."

Treasury Meteorological Committee.

6 Dr Mann's evidence. — On the motion of Dr Tripe, it was resolved that the thanks of the Council be presented to Dr Mann for his evidence on behalf of the Society before the Treasury Meteorological Committee, and that a copy of the evidence be placed in the Society's Library.

Alteration of time of Meeting.

Replies to Circular. — It was reported that 91 Fellows had replied to the circular that had been sent out at the beginning of the month, and that 61 were in favour of altering the hour of Meeting to 8 p.m., 29 that it should remain as at

present, and one neutral.

It was resolved that the question be deferred till the October Council Meeting, the House Committee in the meanwhile to make further enquiries.

Permanent Lightning Rod Committee.

Dr Mann reported that the Permanent Lightning Rod Committee appointed June 16th 1875, had lapsed, no Meeting ever having been held.

The Council then adjourned.

Henry Stokes Eaton

October 18th 1876.

Meeting held at 30 Great George Street.

Present:- H. S. Eaton, President, in the chair.

C. O. F. Cator, J. W. Tripe, C. Brooke,
J. K. Laughton, R. H. Scott, R. J. Mann,
H. Toynbee, P. Bicknell, T. A. Preston,
H. Perigal, A. Brewin, G. M. Whipple.

Minutes.-
The Minutes of the last Meeting were read and confirmed.

Finance.-
Balance.- The balance in hand was reported to be

| | |
|---|---|
| At Bank | £109 - 14 - 4 |
| In hands of Assistant Secretary | 11 - 5 - 9 |
| | £ 121 - 0 - 1 |

Bills passed.- The following bills were ordered to be paid:-
Messrs Williams & Strahan - for printing the Catalogue £55 - 5 - 0
Do - Journal No. 19 £ 37 - 7 - 0

Resignation.- The resignation of Mr. F. J. Bunge was read and accepted.

Death.- Mr. Scott reported the death of Mons. Charles Sainte-Claire-Deville, Honorary Member.
It was resolved that the usual letter of condolence be sent to the family.

Candidates proposed.-
The names of the following Candidates for admission into the Society were read, and their certificates ordered to be suspended, viz:-
Robert Andrew Allison, Rev. T. Godfrey P. Pope
George Washington

Correspondence.-
W. Sowerby.- A letter was read from Mr. Sowerby resigning his seat on the Council through inability

It was decided that the letter stand over till the December Meeting when the nomination of the new Council will take place.

Communications.–

Received.– The following papers had been received:–

1. "Results of Meteorological Observations made at Rossinière, Switzerland, during 1874 and 1875."
By William Marriott.
2. "The Climate of Fiji."
By R. L. Holmes. F.M.S.
3. "Notes on some remarkable Errors in Thermometers recorded at Sydney Observatory, 1876."
By H. C. Russell, B.A. F.R.A.S.
4. "On the Cyclone of September 9th to 17th 1875 in the West Indies."
By F. H. Jahncke.
5. "Results of Meteorological Observations made at Patras, Greece, during 1874 and 1875."
By the Rev. H. A. Boys.
6. "Visibility."
By the Hon. Ralph Abercromby, F.M.S.

On the recommendation of the Referees all the above papers, except that of Mr. F. H. Jahncke, were accepted for reading before the Society.

Papers in hand.– It was resolved that the titles of all the papers in hand that have not been read
× be announced by the President at the Ordinary Meetings.

Report.–

House Committee.– The following report of the House Committee was read:–

"Papers to be printed.– The Committee have ordered the following papers to be printed:–

1. "On the Storm which passed over the South of England on March 12th 1876." By R. H. Scott. F.R.S.
2. "On the Mean Temperature of every day in the year

at the Royal Observatory, Greenwich, from 1814 to 1873": By James Glaisher, F.R.S. (With diagram but the Tables of Corrections for Diurnal Range to be omitted.)

3. "The Climate of Scarborough" By F. Shaw, F.M.S. (Without diagram)

4. "Notice of upward currents during the formation and passage of Cumulus and Cumulo-stratus Clouds": By Rev. Joseph Crompton, M.A., F.M.S.

5. "Suggestions on certain variations, annual and diurnal, in the relation of the Barometric Gradient to the Force of the Wind". By Rev. W. C. Ley, M.A., F.M.S. (With diagram)

6. "Average Weekly Temperature of 30 years at Cardington": By John McLaren, F.M.S.

7. "De la Vulgarisation par la Presse des Observations Météorologiques" By Harold Tarry, F.M.S.

"Printing of Observations. - The Committee have ordered the summaries for 1875 from the thirteen stations supplied to the Meteorological Office: and the detailed observations from Hawes and Strathfield Turgiss for one quarter to be printed in No. 19 of the Quarterly Journal, and the remainder in No. 20.

"Alteration of time of Meeting from 7 to 8 P.M. - The number of answers received is as follows:-

| | |
|---|---|
| Yes | 63 |
| No | 31 |
| Neutral | 1 |
| Total | 95 |

Fellows in and around London and who attend the Meetings:-

| | |
|---|---|
| Yes | 37 |
| No | 22 |

The Committee, having carefully consider the

matter, are of opinion that the expression of feeling is not strong enough to justify the Council in making the proposed alteration in the time of Meeting, and therefore recommend that the question stand over for a twelvemonth.

"Sale of Stock. – The Committee, understanding that the expenditure for the year will exceed the income by about £75, recommend that £50 New 3 Per Cents. be sold to defray part of the cost of the Catalogue.

"New Stations. – The Committee, having been informed that Mr. Briggs will remove from Calcethorpe to Kelstern early in November, and that an application has been received from Mr. Gordon, of Whitehaven, to observe for the Society, have instructed Mr. Symons to inspect these stations.

"(Signed) Henry Storks Eaton
"October 3rd 1876." "Chairman"

The above Report was adopted, with the exception of paragraph 10. in place of which it was resolved, on the motion of Dr. Tripe, and seconded by Mr. Brewin, that £100 New 3 Per Cents. be sold instead of £50 proposed by the House Committee, for general purposes.

Rockwell College Observing Station. – A letter was read from the Rev. J. Graf stating that the College being now permanently established at Rockwell, he intended erecting a meteorological observatory on the grounds inspected by Mr. Scott last year, and hoped that the Society would furnish him with some instruments.

It was resolved that he be informed that the Council regret they have no funds for supplying observers with instruments.

Sale of Separate Papers. – It was proposed by

Dr. Mann seconded by Mr. Laughton, and resolved:— "that separate papers printed by the Society be allowed to be sold at the discretion of the House Committee, and that the numbers beyond 40 supplied to the author be increased only under special arrangements for that purpose to be made by the House Committee. This resolution to be retrospective".

Loan of travelling Barometer.— It was resolved that the thanks of the Council be presented to Mr. Casella for the loan of a standard barometer for comparison with the instruments at our observing stations.

The Council then adjourned

Henry Storks Eaton

November 15th 1876

Meeting held at 25 Great George Street.

Present.- Mr H. S. Eaton, President, in the chair.

| | | |
|---|---|---|
| R. Field | J. W. Tripe | F. Gaster |
| J. K. Laughton | R. H. Scott | J. P. Harrison |
| H. Toynbee | P. Bicknell | R. J. Mann |
| H. Perigal | A. Brewin | C. V. Walker |
| G. J. Symons | C. Brooke | G. M. Whipple |

Minutes.-

The Minutes of the last Meeting were read and confirmed.

Finance.-

Balance.- The balance was reported to be

| | |
|---|---|
| At Bank | £ 127 - 15 - 10 |
| In hands of Assistant Secretary | 8 - 0 - 9 |
| | £ 135 - 16 - 7 |

The sale of £100 New 3 Per Cents realised £93-15-0

Investment of Life Compositions.- It was proposed by Mr Brewin, seconded by Mr Walker, and resolved "that the Treasurer be directed to invest in New 3 Per Cents, all monies received for Composition Fees during this year that have not yet been invested and that he also invest any further Composition Fees that may come in."

Resignation.- The resignation of the Rev. S. Barber was read. It was resolved that he be informed that, according to our Bye Laws it cannot be accepted till the present year's subscription has been paid.

Deaths.- The deaths of Dr C. Jelinek, Honorary Member, and of Dr W. Hering were reported. It was resolved that a letter of condolence be

sent to Madame Jelinek.

Withdrawal of Nomination Paper.- A letter was read from the Rev. T. H. Quelch requesting that his election might not be proceeded with. It was resolved that the nomination paper be withdrawn.

Correspondence.-

R. H. Scott.- The following letter was read:-

"Meteorological Office,
"116 Victoria Street, S.W.
" 8 Nov.r 1876

"Dear Sir,

"In reply to your letter of the 3rd October last, offering to supply this Office with certain Meteorological Returns for the present year, on the same terms as those now in operation, I beg to inform you that this Office will take the Returns (Form A) for the stations Hereford, Ramsgate, and Montgomery.

"Further Returns on Form B are not now required.

"Yours faithfully,
"Robert H. Scott,
Director"

"G. J. Symons Esq.
Secretary, Meteorological Society"

P. Hursey.- A letter was read from Mr. Hursey stating that the Council of the Society of Engineers would be pleased to see any Members of the Council or Society present at their Meetings.

It was resolved that the letter be acknowledged with thanks.

Communications.-

Received.- The following papers had been received:

1. "Description of a Meteorographic Model".

A letter from the late Commodore M. F. Maury Hon. Mem. M.S. to Captain H. Toynbee. F.R.A.S.
2. "On observations with the Psychrometer."
By Dr. R. Rubenson, translated from the Swedish by Dr. W. Doberck.
3. "Contributions to Hygrometry. – The Wet Bulb Thermometer".
By William Marriott. F.M.S.
On the recommendation of the Referees. these papers were accepted for reading: Dr. Rubenson's, however, to be condensed.

Reports.–

House Committee.– The following Report of the House Committee was read and adopted:–

"The House Committee have to report that, in accordance with the resolution passed at the last Meeting of the Council, they have fixed the price for the sale of separate copies of the papers printed in the Quarterly Journal at 6d. per half sheet or portion thereof.

(Signed) "Henry Storks Eaton,
"November 7th. 1876." "Chairman."

Inspection of Stations.–

Mr. Symons reported that he had inspected the station at Whitehaven, but as there was no place for properly exposing the instruments, it could not be accepted as an observing station. He had also inspected a station at Wakefield Prison, and found everything very satisfactory.

A letter was read from Mr. E.E. Glyde. of Torquay, offering to take observations on the large form.

It was proposed by Dr. Tripe, seconded by Mr. Laughton, and resolved "that Mr. Symons inspect

a proposed new station at Torquay, and that it be referred to the House Committee to consider and report on the advisability of accepting this station.

The Council then adjourned.

Henry Stokes Eaton

December 20th 1876.

Meeting held at 25 Great George Street.

Present. - Mr Eaton, President, in the chair.

| | | |
|---|---|---|
| H. Toynbee, | A. Brewin, | R. J. Mann, |
| H. Perigal, | C. Brooke. | T. A. Preston, |
| G. J. Symons, | F. Gaster. | C. O. Walker. |
| J. W. Tripe, | J. P. Harrison, | G. M. Whipple. |
| R. H. Scott. | | |

Minutes. -

The Minutes of the last Meeting were read and confirmed.

Finance. -

Balance - The Balance was reported to be

| | |
|---|---|
| At Bank | £151 - 0 - 10 |
| In hands of Assistant Secretary | 3 - 0 - 11 |
| | £ 154 - 1 - 9 |

Investment of Life Compositions. - It was resolved that the Life Compositions received this year be not invested till January next.

Bills passed. - The following bills were ordered to be paid:-

| | | |
|---|---|---|
| Williams & Strahan | Quarterly Journal No 20 | £31 - 1 - 2 |
| Do | Extra Tabular Matter in Nos 17-20 | 6 - 0 - 0 |
| Eyre & Spottiswoode. | Quarterly Returns | 6 - 16 - 0 |
| Do | Stereo plates of Observations | 8 - 9 - 6 |
| Jennings | Refreshments | 8 - 13 - 6 |
| Beardmore & Barnes | Rent | 20 - 0 - 0 |

Death. - A letter was read from Mr Douglas announcing the death of Mr Cator.

It was resolved that a letter of condolence be sent to Mrs Cator.

Resignation. - The resignation of Capt G. L. Tupman was read and accepted.

Withdrawal of Resignation.- A letter was read from the Rev. S. Barber withdrawing his resignation.

Letter from Rev. T. H. Quelch.- A letter was read from the Rev. T. H. Quelch asking that his nomination, which had been withdrawn at the last Meeting, might stand and his election be proceeded with.

It was resolved that he be balloted for at the Ordinary Meeting.

Nomination of Honorary Member.- The nomination of Mons. Urbain Joseph Le Verrier as an Honorary Member was read and approved.

Communications.-

Received.- The following paper had been received but on the recommendation of the referee was not accepted for reading:-

"On an easy method of preventing evaporation in Meteorological experiments".

By W. H. Watson, F. M. S.

To be printed.- The following papers were ordered to be printed:-

1. "Results of Meteorological Observations made at Rossinière, Canton Vaud, Switzerland, during 1874 and 1875" (With Woodcut)

By William Marriott, F. M. S.

2. "The Climate of Fiji".

By R. L. Holmes, F. M. S.

3. "Notes on some remarkable Errors in Thermometers recorded at Sydney Observatory" (In Abstract not exceeding half a page)

By H. C. Russell, B. A., F. R. A. S.

Report.-

House Committee.- The following Report of the House Committee was read:-

"The House Committee, having been informed

of the cost of each station to the Society, and the time occupied in reducing the returns, have resolved that Babbacombe, near Torquay, be inspected, and if satisfactory, they recommend its acceptance as a second class station.

"The Committee also recommend:-

(1.) That an exchange of publications be made with the Belgian Geographical Society.

(2.) That in future the price of the Quarterly Journal be 2s 6d for four sheets, and 6d extra for every sheet subsequently begun.

(3.) That the usual Christmas boxes be given.

(Signed) "Henry Storks Eaton.

"December 5th 1876. "Chairman."

Paragraph 1. Mr Symons stated that owing to the serious illness of a member of his family he had not been able to inspect any of the stations, but he hoped to do so in February next. He had, however, carefully examined the plan of the station at Babbacombe, and considered it very satisfactory.

It was resolved that Babbacombe be accepted as a second class station.

Paragraph 2 was adopted.

Paragraph 3. It was resolved that this resolution be retrospective as regards the Nos on the Quarterly Journal for the present year.

Paragraph 4 was adopted.

Officers and Council.

The following List of Officers and Council for the ensuing year was adopted:-

(See next page)

# BALLOTING LIST.

**WEDNESDAY EVENING, JANUARY 17, 1877.**

*TO BE PRESENTED IN PERSON ONLY.*

| Attendances at Meetings. Council. Nine Meetings. | Ordinary. Seven Meetings. | | |
|---|---|---|---|
| | | *PRESIDENT.—One name to be returned.* | |
| 9 | 7 | Henry Storks Eaton, M.A. .. .. .. .. .. .. .. .. | |
| | | *VICE-PRESIDENTS.—Four names to be returned.* | |
| 5 | 5 | *James Park Harrison, M.A.* .. .. .. .. .. .. .. | |
| 7 | 5 | John Knox Laughton, M.A., F.R.A.S. .. .. .. .. .. | |
| 8 | 6 | *Robert James Mann, M.D., F.R.A.S.* .. .. .. .. .. | |
| 7 | 6 | *Charles Vincent Walker, F.R.S., F.R.A.S.* .. .. .. | |
| | | *TREASURER.—One name to be returned.* | |
| 6 | 6 | Henry Perigal, F.R.A.S. .. .. .. .. .. .. .. .. | |
| | | *TRUSTEES.—Two names to be returned.* | |
| 2 | 2 | Sir Antonio Brady, F.G.S. .. .. .. .. .. .. .. | |
| 1 | 1 | Stephen William Silver, F.R.G.S. .. .. .. .. .. .. | |
| | | *SECRETARIES.—Two names to be returned.* | |
| 8 | 7 | George James Symons .. .. .. .. .. .. .. .. | |
| 9 | 6 | John W. Tripe, M.D. .. .. .. .. .. .. .. .. | |
| | | *FOREIGN SECRETARY.—One name to be returned.* | |
| 8 | 7 | Robert H. Scott, M.A., F.R.S. .. .. ... .. .. | |
| | | *COUNCIL.—Twelve names to be returned.* | |
| 5 | 3 | Percy Bicknell .. .. .. .. .. .. .. .. .. .. .. | |
| 5 | 4 | Arthur Brewin, F.R.A.S. .. .. .. .. .. .. .. | |
| 5 | 5 | Charles Brooke, M.A., F.R.S., F.R.C.S. .. .. .. | |
| — | — | *Edward Ernest Dymond* .. .. .. .. .. .. .. .. | |
| — | — | *John Evans, F.R.S., F.G.S.* .. .. .. .. .. .. .. | |
| 3 | 4 | *Rogers Field, B.A., Assoc. Inst. C.E.* .. .. .. .. | |
| — | — | *Charles Greaves, M. Inst. C.E.* .. .. .. .. .. .. | |
| 2 | 2 | William Carpenter Nash .. .. .. .. .. .. .. | |
| 5 | 4 | Rev. Thomas Arthur Preston, M.A. .. .. .. .. .. | |
| 2 | 1 | William Sowerby, F.L.S. .. .. .. .. .. .. .. | |
| 7 | 6 | *Capt. Henry Toynbee, F.R.A.S.* .. .. .. .. .. .. | |
| 7 | 7 | George Mathews Whipple, B.Sc., F.R.A.S. .. .. | |

*N.B.—The names of newly proposed Officers and Members of Council are printed in italics.*

Report of Council.—

The draft of the Report of the Council to the Annual General Meeting was read.

It was resolved that it be set up in type and forwarded to the Members of Council for approval and suggestions;—the slips to be returned by January 2nd for the consideration of the House Committee.

The Council then adjourned.

Henry Storks Eaton

January 17th 1877.

Council Meeting held at 25 Great George Street

Present:- H. S. Eaton, President, in the chair.

| | | |
|---|---|---|
| R. Field, | J. W. Tripe, | F. Gaster, |
| J. K. Laughton, | R. H. Scott, | J. P. Harrison, |
| H. Toynbee | P. Bicknell | R. J. Mann, |
| G. J. Symons | A. Brewin, | S. A. Preston, |
| H. Perigal | C. Brooke | C. V. Walker. |

Minutes.-

The Minutes of the last Meeting were read and confirmed.

A letter was read from Mrs Cator thanking the Council for the vote of condolence on the death of her Husband.

The Foreign Secretary reported that a letter had been received from Dr Hann on behalf of Madame Jelinek thanking the Council for the sympathy on the death of her Husband.

Finance.-

Balance Sheet.- The Balance Sheet for the year ending December 31st 1876, showing a balance in favour of the Society of £44-8-10, was read.

Estimated Income & Expenditure for 1877.- The following estimate of receipts and expenditure for the present year was read:- (See pages 179-180)

Fellows in Arrear.- The List of Fellows in arrear on December 31st 1876, was referred to the House Committee for consideration and report.

Balance.- The Balance was reported to be

| | |
|---|---|
| At Bank | £ 177-0-8 |
| In hands of Assistant Secretary | 12-9-4 |
| | £ 189-10-0 |

Resignations.— The resignations of the following were read and accepted:—

Admiral Sir E. Belcher.

J. W. Jeans. and

F. Moser.

Candidates proposed.—

The names of the following Candidates for Admission into the Society were read and their certificates ordered to be suspended; viz:—

William Adams.

Thomas Black.

Robert W. Menzies, and

R. Bowie Wallcott. M.D.

Communications.—

Received.— The following papers had been received:—

1. "Barometrical and Thermometrical Clocks for registering mean atmospheric pressure and temperature".
By W. F. Stanley. F. M. S.

2. "On a new Form of Solar Thermometer".
By Commander E. Bourke. R. N.

3. "The Solar Thermo-Radiometer".
By J. J. Hicks. F. M. S.

4. "On an Improvement in Minimum Thermometers for Terrestrial Radiation".
By J. J. Hicks. F. M. S.

On the recommendation of the referees Nos. 1. 3 and 4 were accepted for reading. As the report of the referee on No. 2 was unfavourable the paper was not accepted, but it was decided that Commander Bourke might exhibit the instrument at the next Meeting.

To be printed.— The following papers were ordered to be printed:—

## Estimate of Receipts and

| Receipts | £ | s | d | £ | s | d |
|---|---|---|---|---|---|---|
| Dividends, | | | | | | |
| New 3 Per Cents £210 | 6 | 4 | 0 | | | |
| M.S & L.R. £800 | 35 | 11 | 0 | 41 | 15 | 0 |
| Meteorological Office. | | | | | | |
| Returns on Form A | 52 | 10 | 0 | | | |
| " " B | 12 | 10 | 0 | 65 | 0 | 0 |
| Subscriptions | | | | | | |
| 1877 | 250 | 0 | 0 | | | |
| Arrears | 50 | 0 | 0 | | | |
| Entrance Fees & New Fellows | 40 | 0 | 0 | 340 | 0 | 0 |
| Sale of Publications | | | | 20 | 0 | 0 |
| Balance in hand, Jany 1st | | | | 44 | 8 | 10 |
| | | | £ | 511 | 3 | 10 |

1. "On Observations with the Psychrometer." By Dr. R. Rubenson, translated by Dr. W. Doberck.
2. "Contributions to Hygrometry. - The Wet Bulb Thermometer." (With Woodcuts)
By William Marriott, F.M.S.
3. "Visibility." (The question of printing Woodcuts was referred to the Editing Committee)
By the Hon. Ralph Abercromby, F.M.S.
4. "Description of a Meteorographic Model."
A letter from the late Commodore M.F. Maury

# Expenditure for 1877.

| Expenditure. | £ | s | d | £ | s | d |
|---|---|---|---|---|---|---|
| Journal.- Printing | 90 | 0 | 0 | | | |
| Illustrations | 15 | 0 | 0 | | | |
| Observations & Registrar General's Reports | 30 | 0 | 0 | | | |
| Author's Copies | 10 | 0 | 0 | 145 | 0 | 0 |
| Printing &c - Circulars &c | 10 | 0 | 0 | | | |
| Stationery | 7 | 10 | 0 | | | |
| Books & Bookbinding | 10 | 0 | 0 | 27 | 10 | 0 |
| Salaries- Assistant Secretary | 125 | 0 | 0 | | | |
| Computer | 26 | 0 | 0 | 151 | 0 | 0 |
| Office Expenses &c - Rent & Housekeeper | 29 | 0 | 0 | | | |
| Furniture & Coals | 5 | 0 | 0 | | | |
| Postage | 25 | 0 | 0 | | | |
| Petty expenses | 5 | 0 | 0 | | | |
| Refreshments | 9 | 0 | 0 | 73 | 0 | 0 |
| Observations- Inspection of Stations | | | | 15 | 0 | 0 |
| Stock Purchase of £60 New 3 Per Cents | | | | 56 | 19 | 0 |
| | | | | 468 | 9 | 0 |
| Estimated excess of receipts over expenditure | | | | 42 | 14 | 10 |
| | | | £ | 511 | 3 | 10 |

Hon. Mem. M.S. to Capt. H. Toynbee, F.R.A.S.

Report.-

House Committee.- The following Report of the House Committee was read and adopted:-

"The House Committee, having considered the financial position of the Society, recommend that the salary of the Assistant Secretary be increased by £5 per annum till it reaches £150 per annum; and that the Computer have 11/- per week for this year.

(Signed) "Henry Storks Eaton

January 2nd 1877 "Chairman."

Report of Council.

The revised Report of the Council to the Annual General Meeting was read and adopted.

The Council then adjourned.

Henry Hicks Eaton

February 21st 1877.

Council Meeting held at 25 Great George Street.

Present:- H. S. Eaton, President, in the chair.

| | | |
|---|---|---|
| J. P. Harrison. | J. W. Tripe. | C. Greaves. |
| J. K. Laughton. | R. H. Scott. | T. A. Preston. |
| R. J. Mann. | P. Bicknell. | W. Sowerby. |
| C. V. Walker. | A. Brewin. | H. Toynbee. |
| H. Perigal. | E. E. Dymond. | G. M. Whipple. |
| G. J. Symons. | R. Field. | |

Minutes.-

The Minutes of the last Meeting were read and confirmed.

Finance.-

Balance.- The Balance was reported to be

| | |
|---|---|
| At Bank | £ 178 - 15 - 11 |
| In hands of Assistant Secretary | 21 - 13 - 0 |
| | £ 200 - 8 - 11 |

On Jany 24th £52-5-0 New 3 Per Cents was purchased for £50-0-0

Resignation.- The resignation of the Rev. W. Previté Orton was read and accepted.

Communications.-

Received.-

"Contributions to the Meteorology of the Pacific - Fiji". By R. H. Scott, F.R.S. - Accepted for reading.

"Local Diurnal Range", by S. H. Miller F.R.A.S., and "Amount of Cloud at certain British Stations", by R. H. Scott, F.R.S, were accepted subject to the approval of the Referees.

A note on an error in Mr Rundell's paper on "Diurnal Inequalities of the Barometer" was referred to the Editing Committee to deal with.

Report.-

House Committee.- The following Report of the

House Committee was read and adopted:-

"The House Committee, having carefully considered the List of Fellows in arrear, recommends (1) that the following be removed from the List:-

Rev. T. F. Falkner.

H. E. Legrave.

A. Slate:

(2) that Mr. Ulsill be allowed till March 25th and if his subscriptions are not then paid, that his name be struck off; (3) that the names of the other Fellows, who are in arrear, remain on the List for another year, and that a fresh application be made for payment; and (4) that the subscription of Mr. Hutchins for last year be remitted as he was elected under exceptional circumstances.

"The Committee recommends that the Library be insured for the sum of £250.

"The Committee, having learned that additional accommodation is required for the books in the Library, has ordered fresh shelves to be fitted up.

"The Committee has granted permission to Messrs Negretti & Zambra to exhibit at the Ordinary Meeting on the 21st instant an Apparatus for recording Hourly Temperatures.

(Signed) "Henry Storks Eaton.

"February 6th 1877. Chairman."

Election of Committees.-

The Committees were appointed as follows:-

House Committee.-

The President, three Secretaries, Dr. Mann, Mr. Bicknell, Mr. Brooke and Mr. Greaves.

Editing Committee.-

Dr. Mann, Mr. Laughton and Mr. Scott.

Observation Committee

The President. Mr Scott and Mr Symons.

Grant for Library.—

It was resolved that the sums of £10 for the purchase of books, and £6 for bookbinding, be placed at the disposal of the House Committee.

The Council then adjourned

Henry Stokes Eaton

March 21st 1877

Council Meeting held at 25 Great George Street.

Present. – H. S. Eaton, President, in the chair.
J. K. Laughton, R. H. Scott, R. Field,
C. V. Walker, S. Bicknell, C. Greaves,
H. Perigal, A. Brewin, H. Toynbee,
G. J. Symons, C. Brooke, G. M. Whipple.
J. W. Tripe, E. E. Dymond.

Minutes. –
The Minutes of the last Meeting were read and confirmed.

Finance. –
Balance – The Balance was reported to be

| | |
|---|---|
| At Bank | £229 - 4 - 5 |
| In hands of Assistant Secretary | 18 - 3 - 0 |
| | £247 - 7 - 5 |

Bill passed. – Messrs Williams & Strahan's bill of £22-15-0 for printing No. 21 of the Quarterly Journal was ordered to be paid.

Correspondence. –
The Foreign Secretary read a letter from Mons. Le Verrier, thanking the Society for the honour conferred upon him in electing him an Honorary Member.

Communications. –
Received. – The following papers had been received and on the recommendation of the referees were accepted for reading: –

(1) "On the Meteorology of Mozufferpore, Tirhoot, during 1876".
By C. N. Pearson, F. M. S.

(2.) "On the Diétheroscope"
By Prof. J. Luvini.

Mr. Symons promised to send in a paper for the next Meeting, which was accepted subject to the approval of Mr. Brooke.

To be printed. – The following papers were ordered to be printed:–

(1.) "Barometrical & Thermometrical Clocks for registering Mean Pressure and Temperature".
By William F. Stanley, F.M.S.

(2.) "Solar Thermo-Radiometer", and

(3.) "An Improvement in Minimum Thermometers for Terrestrial Radiation".
By J. J. Hicks, F.M.S.

Report.

House Committee. – The following report of the House Committee was read and adopted:–

"The Committee, having carefully revised the List of Exchanges, recommends (1) that the names of Dr. Fritsch, Mons. Poey, and the Toronto Education Office be removed from the List; and (2) that the following be added to it, viz:–

Budapest. – Königl. Ungarische Central-Anstalt für Meteorologie.
Calcutta. – St. Xavier's College Observatory.
Edinburgh. – Royal Society.
Lisbon. – Observatory.
Madrid. – Geographical Society.
Marlborough. – Natural History Society.
Moncalieri. – Observatory.
Rome. – Ministero d' Agricultura.
Sydney. – Royal Society of New South Wales.
Zurich. – Swiss Central Meteorological Institute

"The Committee, on the recommendation of the Referee, has accepted Mr. Miller's paper on "Local Diurnal Range" for reading, and has granted permission to Messrs Negretti & Zambra to

exhibit at the next Meeting, a Dry and Wet Bulb Hygrometer with protected scales, and a Solar Radiation Thermometer with a vacuum test gauge.

"(Signed) Henry Storks Eaton.

"March 6th 1877." "Chairman."

Library Fund. -

Dr Tripe read the draft of a circular letter which it was proposed should be sent to the Fellows asking them for donations of books on the various climates of the world.

It was resolved that a paragraph be added that contributions of money will also be acceptable for the purchase of books.

THE METEOROLOGICAL SOCIETY.

30 Great George Street,
Westminster, S.W.
April 1877.

Dear Sir,

The Council of the Meteorological Society are very desirous of enriching the Library with books bearing on Meteorological subjects, for instance Travels, such as contain references to the Climate of the various Countries of the World. They will therefore feel obliged if you will present to the Library any books on the subject which you have, and feel inclined, to spare. All donations will be acknowledged in the Quarterly Journal, and entered with the donor's name in the copy of the Library Catalogue which is kept in the Society's Office.

We also have to inform you, that a special Fund has been established for enlarging and improving the Library, and we shall be glad to receive any contribution you may feel inclined to give.

We remain, dear Sir,
Faithfully yours,

G. J. SYMONS,
JOHN W. TRIPE, M.D., } *Hon. Secs.*

Diurnal Range.-

Dr. Tripe stated that he had seen Mr. Marriott on the subject of some statistics deduced from the photographic curves, which he had obtained from Greenwich, of the mean temperature at each hour of the day, and which had been asked for after a conversation with the President; That it had been arranged between him and Mr. Marriott that the hourly means of four other stations should be worked out for comparison with these, and that Mr. Marriott should employ himself on overtime as the work was to be done for the Society.

After discussion, Dr. Tripe's action was approved and the matter referred to the House Committee.

The Council then adjourned.

Robert James Mann

April 18th 1877

Council Meeting held at 25 Great George Street.

Present.– Dr. Mann, Vice-President, in the Chair.

| | | |
|---|---|---|
| C. V. Walker. | A. Brewin. | C. Greaves. |
| G. J. Symons. | C. Brooke. | T. A. Preston. |
| J. W. Tripe. | E. E. Dymond. | H. Toynbee. |
| R. H. Scott. | J. Evans. | G. M. Whipple. |
| P. Bicknell. | R. Field. | |

Minutes.–

The Minutes of the last Meeting were read and confirmed.

Finance.–

Balance.– The Balance was reported to be

| | |
|---|---|
| At Bank | £195 .. 14 – 2 |
| In hands of Assistant Secretary | 10 – 14 – 0 |
| | £ 206 .. 8 – 2 |
| Donation to Library Fund | £ 1 – 0 – 0 |

Bill passed.– Messrs Williams & Strahan's bill for Printing and Stationery, amounting to £5 – 3 – 0, was ordered to be paid.

Communications.–

To be printed.– The following papers were ordered to be printed:–

1. "Results of Meteorological Observations made at Patras, Greece, during 1874 and 1875".
By the Rev. Herbert A. Boys.
2. "Contributions to the Meteorology of the Pacific.– Fiji".
By R. H. Scott, F.R.S. (With Plate)
3. "Local Diurnal Range".
By Samuel H. Miller, F.R.A.S.

Mr. Marriott's paper "Remarks on Diurnal Range" was referred to Mr. Scott for report.

Received.– The following papers had been received

and on the recommendation of the referees were accepted for reading:-

1. "Improved form of Thermometer for observing Earth Temperatures".
By G. J. Symons, F.M.S. (To be read tonight)
2. "Improved form of Mercurial Barometer".
By R. C. Power, F.M.S.
3. "The Relation between the Upper and Under Currents of the Atmosphere around areas of Barometric Depression".
By Rev. W. Clement Ley, M.A., F.M.S.
4. "Contributions to the Meteorology of the Pacific, No II. - "The Island of Rapa".
By Robert H. Scott, F.R.S.
5. "Note on the degree of accordance of Mr. Glaisher's and the Kew Thermometer Standards".
By William Ellis, F.R.A.S. (To be read tonight)

<u>Lightning Rod Committee.-</u>

It was proposed by Mr. Symons, seconded by Mr. Field and resolved that a Lightning Rod Committee be appointed to prepare a brief Manual of Instruction and information regarding the construction of the Lightning Rod, and for the general investigation of matters bearing practically upon the injurious effects of Lightning; and that it consist of the President, Secretaries, Dr. Mann, Mr. Brooke, Mr. Dymond, Mr. Walker and Mr. Preece.

The ordinary Business having been disposed of, a Special Meeting was held, for the Minutes of which see next page.

Henry Storks Eaton

April 18th 1877

Special Council Meeting held at 25 Great George Street.

Present:- Dr. Mann, Vice-President, in the chair.

C. V. Walker, A. Brewin, C. Greaves.
H. Perigal, C. Brooke. F. A. Preston,
G. J. Symons, E. E. Dymond, G. M. Whipple.
J. W. Tripe, J. Evans,
P. Bicknell, R. Field,

This Meeting was called for the purpose of considering the propriety of memorializing H. M's Treasury for a grant in aid of the Society's work.

The following letter which had been sent by the Secretaries to the Treasury was approved:-

"Meteorological Society,
"30 Great George Street,
"Westminster, S.W.
"April 14th 1877.

"To W. H. Smith Esq. M. P.,
"Sir,

"As we are informed that active steps will be taken to obtain for the Scottish Meteorological Society, a grant from Her Majesty's Treasury, we beg to call your attention to the fact that our Society in addition to being the only Chartered Meteorological body and having almost all the claims possessed by the Scottish Meteorological Society, has this in addition that it has always worked harmoniously with the Meteorological Committee and is at the present time supplying much information to the Office for a sum merely covering the cost of copying. Under these circumstances we venture to anticipate the despatch of a Memorial from our Council to Her Majesty's Treasury by this

letter, requesting your attention to the fact that any grant to the one Society should necessarily be accompanied by a similar one to the other.

"We remain, Sir,

"Yours obediently,

"G. J. Symons, } Hony.
"John W. Tripe, M.D. } Secretaries."

It was resolved that it is desirable that a Memorial be sent to the Government.

The draft Memorial prepared by the Secretaries was considered and, after some discussion and alteration, was adopted as follows:-

"To the Lords Commissioners of H. M's Treasury.

The Memorial of the Meteorological Society

Sheweth -

1. That the Meteorological Society was established in the year 1850, and incorporated by Royal Charter in the year 1866.
2. That the Society consists of 388 Fellows paying annual subscriptions, or who have compounded for their annual subscriptions, and of 17 Honorary Members who are almost without exception the most eminent Meteorologists in the world.
3. That the Society holds Meetings for the discussion of Meteorological subjects eight times per annum. - the public being admitted to these Meetings on easy conditions.
4. That a considerable number of the Fellows are really working Meteorologists, and contribute papers to the Society's publications.
5. That the Society publishes a Quarterly Journal (specimen herewith) which is supplied gratuitously

to a very large number of Observatories and Meteorological establishments of the globe.

6. That the Society has established a series of meteorological stations in various parts of England and Wales, principally at the expense, and under the care, of the Fellows of the Society. The Instruments being all verified, mounted uniformly, observed at the same hours, and the observations tabulated and reduced precisely similarly, and no station accepted until it has been visited and examined by the Society's Inspector, and a plan drawn of the position of the instruments. The original reports upon the stations are open for inspection at the Society's room, and reduced copies of the plan and an abstract of the report are published for general information.

7. That in addition to the above the Society through its paid Officer undertakes and publishes original investigations.

8. That inasmuch as its entire income is less than £500 per annum the action of the Society is much crippled, and but for the Fellows assisting the Society without any remuneration it would be impossible to continue what the Society is doing.

9. That the Society has since January 1st 1875 supplied to the Meteorological Committee the results from 12 of its stations at a charge merely calculated to cover the expense of copying, — the Society having borne all the cost of inspecting the stations, and of the scientific skill requisite for verifying and reducing the observations, which observations are by the Meteorological Committee published for the benefit of the Public.

10. That your Memorialists have considered the

"Report of the Treasury Committee" "upon the mode of administration of the annual grant in aid of Meteorological Observations"; and the recommendations contained therein and beg to submit that in consideration of the facts above set forth, and especially of those contained in paragraphs Nos 6 and 9, this Society is fairly entitled to favourable consideration, irrespective of any grant to any other Society.

Given under the Common Seal of the Meteorological Society this twentieth day of April 1877

L S

Henry Storks Eaton President
John W. Tripe, M.D. Secretary

It was resolved that the Memorial be signed by the President and the senior Secretary (Dr. Tripe) and sealed at a Special Meeting of the Council to be held at 5 p.m. on Friday the 20th instant.

The Council then adjourned.

Henry Storks Eaton

## April 20th 1877

### Special Council Meeting held at 30 Great George Street

Present:- H. S. Eaton, President, in the Chair,
J. P. Harrison, G. J. Symons, C. Brooke,
J. K. Laughton, J. W. Tripe, C. Greaves,
S. W. Silver, A. Brewin, T. A. Preston.

This Meeting was called for the purpose of affixing the Seal to the Memorial to be sent to H. M's Treasury, asking for a Grant in aid of the Society's work. Dr. Tripe having read the fair copy of the Memorial (see Minutes of last Meeting), it was proposed by Mr. Brewin, seconded by Mr. Brooke, and resolved, that in accordance with the resolution passed at the last Meeting, the Memorial be now sealed with the Common Seal and signed by the President and senior Secretary (Dr. Tripe).

This having been done, the Meeting terminated.

Henry Storks Eaton

May 16th 1877.

Council Meeting held at 25 Great George Street. S.W.

Present.– H. S. Eaton, President in the chair,

J. P. Harrison, J. W. Tripe, E. E. Dymond,
J. K. Laughton, R. H. Scott, C. Greaves,
R. J. Mann, A. Brewin, H. Toynbee,
G. J. Symons, C. Brooke, G. M. Whipple.

Minutes.

The Minutes of the three previous Meetings were read and confirmed.

Finance.–

Balance.– The balance was reported to be

| | |
|---|---|
| At Bank | £ 218 – 1 – 5 |
| In hands of Assistant Secretary | 12 – 11 – 0 |
| | £ 230 – 12 – 5 |
| Library Fund | £ 1 – 0 – 0 |

Bill passed.– Messrs Williams & Strahan's bill for printing No. 22 of the Quarterly Journal amounting to £24-2-6 was ordered to be paid.

Communications.–

To be printed.– The following papers were ordered to be printed:–

1. "Remarks on Diurnal Range"
   By William Marriott (with two illustrations)
2. "On the Meteorology of Mozufferpore, Tirhoot, for the year 1876."
   By Charles N. Pearson. F.M.S.
3. "On the Diathéroscope".
   By Prof. J. Luvini.
4. "Improved form of Thermometer for observing Earth Temperature".
   By G. J. Symons, F.M.S. (with illustrations)
5. "Note on the degree of accordance of Mr. Glaisher's

and the Kew Thermometer Standards".
By William Ellis. F.R.A.S.

Received.-

The following papers were received.-

1. "On an Improvement in the mechanism of self-recording Meteorological Instruments".
By the Rev. C. J. Taylor.

2. "Results derived from the sunshine records obtained at the Royal Observatory, Greenwich, by means of Campbell's self-registering sun dial during the year ending 1877 April".
By William Ellis. F.R.A.S.

3. "On a remarkable barometrical oscillation observed in Ireland and Scotland, January 30th 1876".
By Robert H. Scott. F.R.S.

4. "On Arched Squalls".
By Capt. A. Schück (Translated by Mrs Toynbee)

On the recommendation of the Referee No 1 was accepted for reading. Nos 2, 3 and 4 not having been referred, it was resolved that the reports of the Referees be submitted to the House Committee.

Report -

House Committee.- The following report of the House Committee was read and adopted:-

"The Committee has much pleasure in reporting that the Astronomer Royal has given Mr Marriott full permission to publish in our Quarterly Journal the Table of Mean Hourly Temperatures for the 20 years 1849-68.

"The Committee has voted Mr Marriott the sum of £1-10-0 for overtime in the preparation of his paper on "Diurnal Range".

(Signed) "Henry Storks Eaton.
"May 1st 1877" "Chairman"

Government and Meteorology.

A letter was read from the Hon. Ralph Abercromby stating that a deputation from the Scottish Meteorological Society had the previous day waited upon the Chancellor of the Exchequer, and had received the promise of a grant of £1000. Mr Abercromby suggested that this Society should also make application to the Treasury for a grant.

It was resolved that Mr Abercromby be thanked for his communication, and informed that the Government have already been memorialized by the Council.

It was also resolved that the President see Dr Hooker on the matter and report to the House Committee.

Lightning Rod Committee.

It was resolved that Dr Mann be responsible for calling together the Lightning Rod Committee.

The Council then adjourned.

Henry Storks Eaton

June 20th 1877

Council Meeting held at 25 Great George Street. S.W.

Present:- H. S. Eaton, President in the chair.

J. K. Laughton, G. J. Symons, E. E. Dymond,
R. J. Mann, J. W. Tripe, C. Greaves,
C. V. Walker, R. H. Scott, T. A. Preston
H. Perigal, C. Brooke, G. M. Whipple

Minutes.-
The Minutes of the Meeting of May 16th were read and confirmed.

Finance.-
Balance.- The Balance was reported to be

| | |
|---|---|
| At Bank | £ 200 - 18 - 4 |
| In hands of Assistant Secretary | 12 - 3 - 0 |
| | £ 213 - 1 - 4 |
| Library Fund | £ 1 - 0 - 0 |

Death.- Mr. Symons reported the death of Mr. George C. Atkinson.

Application for a Government Grant.
The President stated that in accordance with the wish of the Council, he had seen Dr. Hooker, the President of the Royal Society, on the subject, who recommended that an application should be made to the Government for a grant for past services. Accordingly the following letter was prepared and sent to Sir Stafford Northcote:-

"30 Great George Street.
" Westminster. S.W.
" May 28th 1877.

"To the Rt. Hon. Sir Stafford Northcote, Bart., M.P.
" Her Majesty's Treasury, Whitehall, S.W.
"Sir,
"On the 20th of April last we had the honour of forwarding a Memorial setting forth the claims of

the Meteorological Society for a grant in aid of its current expenditure from the Lords Commissioners of H.M's Treasury. As it appears that a sum has been promised for "past services" to a junior Society — the Scottish Meteorological Society, — we are instructed to request your consideration of the following facts which prove that our Society has even stronger claims on the ground of past services rendered to the State :—

1. During 22 years the Society collected and reduced the Meteorological observations published by the Registrar General of Births, Deaths, and Marriages, and paid Mr. Glaisher, who compiled these returns, £52 per annum for the salary of an assistant engaged upon this work ~~but~~ from which the Society derived no pecuniary advantage whatever. The Society has in addition occasionally paid considerable sums for printing the forms (specimen of which is enclosed A) on which the observations were recorded.

2. The Society is always willing to receive communications from any person whether a Fellow or not; its Meetings are well attended, and the discussion of the papers is unfettered. In this way a great stimulus is given to research; and the subsequent publication of the papers and the discussions thereon disseminates the latest and best information on Meteorology throughout the United Kingdom and abroad.

3. The Society has striven in all possible ways to advance the Science of Meteorology and to place it upon a thoroughly firm basis. With this object it appointed Delegates to attend the Meteorological Congress at Vienna and the Conference upon Maritime Meteorology in London.

4. At the request of the Council a Conference consisting of Delegates from the Royal Agricultural,

Royal Botanic, Royal Dublin, Royal Horticultural, Marlborough College Natural History, and the Meteorological Societies has been held for the purpose of drafting complete instructions for the observation of Natural Periodical Phenomena. The Society has published "Instructions for the observation of Phenological Phenomena" and has organized a number of observers throughout the country, whose observations are discussed and printed in the Annual Reports of the Council, and are of considerable use to Agriculturists.

5. A Committee has been appointed to prepare a Manual of Instruction and information regarding the construction of Lightning Conductors and for the general investigation of matters bearing upon the protection of life and property from the injurious effects of Lightning. A paper "On some practical points connected with the construction of Lightning Conductors" prepared by the Chairman of this Committee and read before the Society has been "reprinted and circulated for the information and guidance of the Officers of the Public Works Department of the Government of India".

6. The Society has organized, at an expense of £300, a series of new observing stations equipped with first class instruments, inspected by an Officer of the Society, and in all respects perfect specimens of "Second Order Stations". One of these, Dartmoor, is the highest station actually at work in the United Kingdom. The form (specimen B) used by the Society for these Stations is now adopted by the Meteorological Office and the Army Medical Department. This form is also supplied gratuitously to the Society's Observers in Newfoundland.

the Falkland Isles and elsewhere.
7. The Society in 1857 printed and published at great cost a paper by Mr Glaisher giving the Mean Temperature at Greenwich for every day from January 1st 1814 to December 31st 1856, and by supplements it has completed that information to the end of 1873. These Tables have never been reprinted and are to be found only in the publications of the Society.
The Society considers that the above are strong reasons in support of its claim for a grant in recognition of its past services. If further information is needed, a Deputation from the Society will be happy to wait upon you at any time.
"We have the honour to be,
Sir,
"Your obedient Servants,
"Henry Storks Eaton, President.
"G. J. Symons }
"John W. Tripe, M.D. } Secretaries."

The reply from the Treasury was as follows:-
"Treasury Chambers
"June 1877
"Sir,
"In reply to memorials from the Meteorological Society dated the 14th and 20th of April and the 28th ulto: wherein, referring to the Report of the recent Commission on Inquiry into the administration of the Vote for Meteorology, application is made to the Lords Commissioners of the Treasury for favorable consideration of the claims of the Meteorological Society, irrespective of any grant to any other Society I am directed to ~~say~~ inform you that my Lords have agreed with the Royal Society

for the creation of such a Committee or Council as is contemplated in the 9th paragraph of the Report, and that as regards aid to particular Meteorological Societies, my Lords intend to adhere strictly to the recommendation in the 23rd paragraph of the Report, which is to the effect that no payments should be made to such bodies except for results sought for by the new Council, which in the preceding paragraph has its attention directed to the importance of fostering local co-operation to the utmost.

My Lords observe that in one of the Memorials from the Meteorological Society reference is made to the Scottish Meteorological Society.

That Society has been admitted to have some claim upon the Government in respect of work which it has been allowed under a special arrangement during a number of years, to perform for the Registrar General's Department in Scotland, but my Lords have no intention to make that Society an exception in future to the principles laid down in the Report. Its claims for the past will be disposed of by a single and final grant. No other Meteorological Society is in the same position.

As regards your own Society, my Lords would suggest that the better course will be, to wait until the new Council has been constituted, and then to put yourselves into communication with it on the basis of the Report of the Committee of Enquiry.

"I am, Sir,

"Your obedient Servant,

"R. R. W. Lingen."

"The President,

Meteorological Society."

It was considered desirable that the recommendation of the Treasury, viz- that the Council should put themselves in communication with the new Meteorological Council, should be acted upon.

Mr. D. Milne Home.- Several letters from Mr. Milne Home to Mr. Marriott were read in which he recommended that a joint Deputation from this and the Scottish Society should wait upon the Chancellor of the Exchequer to urge the claims of both Societies for a Government grant. He also asked to be favoured with a copy of the Society's application to the Treasury.

It was resolved that he be informed of the nature of the reply from the Treasury, and that the Council will act upon the suggestion contained therein and will put themselves in communication with the new Meteorological Council.

Correspondence.-

Mr. G. Harvey Simmonds.- A number of letters from Mr. Harvey Simmonds and Dr. Tripe respecting the sale of £100 New 3 per Cents were read, Mr. Simmonds being of opinion that the Council have not the right to dispose of the property of the Society without the consent of the Fellows.

After some discussion as to the meaning of the words in the Charter bearing on the subject, it was resolved that Mr. Brewin be asked to give his opinion on the matter, and that Mr. Simmonds be informed that the question will be considered by the Council during the recess.

Communications.-

To be printed.- The following papers were ordered to be printed:-

1. "An Improved form of Mercurial Barometer." By R. E. Power, F.M.S. (With Woodcut)
2. "The Relation between the Upper and Under Currents of the Atmosphere around areas of Barometric Depression."

By the Rev. W. Clement Ley, M.A., F.M.S. (With Plates)

With respect to the daily charts for the month of March 1876, it was thought that only one series – viz from the appearance to the disappearance of one storm – was suffient. It was resolved that this be done and that the sum of £5 be paid by the Society towards the printing of the plates, the remainder to be raised by contributions. If however Mr Ley wished to have the whole engraved and published, he would have to pay the cost of the additional plates, but not the printing. The selection was referred to the Editing Committee.

3. "Contributions to the Meteorology of the Pacific No II – The Island of Rapa".

By R. H. Scott, F.R.S. (With Plates)

Received.–

The following paper had been received, and on the recommendation of the Referee was accepted for reading tonight:–

"Contributions to the Meteorology of Cannes".

By William Marcet, M.D., F.R.S.

Reports.

House Committee.– The following Report of the House Committee was read and adopted:–

"The Committee has, on the recommendation of the Referees accepted the following papers for reading before the Society, viz.–

1. "Results derived from the Sunshine Records obtained at the Royal Observatory, Greenwich, by means of Campbell's self-registering Sun Dial during the year ending April 1877".

By William Ellis, F.R.A.S.

2. "On the Diurnal Variation of the Barometer at the Royal Observatory, Greenwich".

By ~~Griffith H. Cox~~ William Ellis, F.R.A.S.

3. "On the Rainfall at Jamaica during the seven years 1870-1876."
By Griffith H. Cox.
4. "On Arched Squalls".
By Capt. A. Schück (Translated by Capt. Toynbee)
5. "On a Remarkable Barometric Oscillation on 30th of January 1876."
By Robert H. Scott, F.R.S.
Nos 4 and 5 to stand over till next Session.
"The Committee has authorized the draft of the Manual of Lightning Rod Construction to be set up in type, and the Report of the Lightning Rod Committee to be ~~read~~ at the Ordinary Meeting.
"The Committee has granted Mr Marriott the loan of such instruments belonging to the Society as he may require for thoroughly equipping his new station.
(Signed) "Henry Storks Eaton
June 5th 1877. Chairman"

Lightning Rod Committee. – There not being time to take the Report of the Lightning Rod Committee it was postponed till the October Meeting.

Exhibition of Instruments.
Permission was granted to Mr Marriott to exhibit at the Ordinary Meeting Bogen's Hygrometer and Standard Siphon Barometer.

The Council then adjourned.

Henry Storks Eaton

October 17th 1877.

Council Meeting held at 30 Great George Street, S.W.

Present:- H. S. Eaton, President, in the chair,

| | | |
|---|---|---|
| J. K. Laughton, | J. W. Tripe | C. Greaves |
| R. J. Mann, | P. Bicknell | W. Sowerby |
| C. V. Walker, | A. Brewin. | H. Toynbee |
| H. Perigal | C. Brooke | G. M. Whipple. |
| G. J. Symons | | |

Minutes-
The Minutes of the last Meeting, June 20th, were read and confirmed.

Finance.

Balance- The Balance was reported to be

| | |
|---|---|
| At Bank | £ 163 - 5 - 4 |
| In hands of Assistant Secretary | 2 - 5 - 0 |
| | £ 165 - 10 - 4 |

| Library Fund. | £ - s. d. |
|---|---|
| W. Sowerby Esq | 1 - 0 - 0 |
| F. G. Tippinge Esq | 2 - 2 - 0 |
| | £ 3 - 2 - 0 |

Bills passed- The following bills were ordered to be paid:-

| | | |
|---|---|---|
| Williams & Strahan for Quarterly Journal No. 23. | | £ 26 - 3 - 6 |
| Do. | printing Forms | £ 12 - 14 - 6 |

Candidates proposed-
The names of the following candidates for admission into the Society were read and their certificates ordered to be suspended:-

| | |
|---|---|
| E. D. Archibald, B.A. | Rev. E. A. D. O'Gara, O.S.B. |
| Capt. W. F. Caborne. | R. Pennington, B.A., LL.B. |
| H. Clarke, L.R.C.P. | E. E. Prichard, Assoc. Inst. C.E. |
| R. Gordon, M. Inst. C.E. | Rev. S. J. W. Sanders, M.A. |

Deaths.- The following deaths were reported:-
J. P. Gassiot, and Mons. U. J. Le Verrier, Honorary Member.

Correspondence

H. Colborne - A letter was read from Mr H. Colborne asking that observations from a London station be published in the Quarterly Journal.

Rev. W. S. S. Paddan - A letter was read from the Rev. W. S. S. Paddan offering to observe in Connemara if supplied with instruments.

R. P. T. Logan - A letter was read from Mr R. P. T. Logan offering to observe at Enniskillen if supplied with instruments.

The consideration of these letters was postponed pending the result of the application to the new Meteorological Council.

H. C. Russell - A letter was read from Mr H. C. Russell respecting the remarkable errors in his thermometer, - which he forwarded. The bulb of the thermometer was broken in transit, but there appeared to be a small secondary bore. The thermometer was handed over to Mr Whipple for examination.

Communications

Received - The following papers had been received and on the recommendation of the Referees were accepted for reading:-

1. "Notes on the Meteorology and Physical Geography of the West Coast of Africa".
   By Commander E. Bourke, R.N.
2. "On the general character and principal sources of variation in the weather at any part of a cyclone or anticyclone".
   By the Hon. Ralph Abercromby F.M.S.

Reports -

House Committee

The following Report of the House Committee was read and adopted:-

<u>Papers to be printed</u> - The Committee has ordered the following papers to be printed:-

1. Rev. C. J. Taylor, M.A. - "On an improvement in the mechanism of self-recording instruments."
2. W. Ellis, F.R.A.S. - "Results derived from the Sunshine Records obtained at the Royal Observatory, Greenwich, by means of Campbell's self-registering sun dial, during the year ending April 1877."
3. W. Ellis, F.R.A.S. - "On the Diurnal Variation of the Barometer at the Royal Observatory, Greenwich (With Plate).
4. G. H. Cox. "On the Rainfall of Jamaica during the seven years 1870-76" (To go in the January Number, with Plate)
5. Dr. W. Marcet, F.R.S. - "Contributions to the Meteorology of Cannes." (£5 voted, Dr. Marcet to pay the remainder)

<u>Issue of Nomination Paper & Circular to the Fellows</u>. The Committee has directed that a Nomination Paper together with a circular asking the Fellows to propose one or more of their friends as Fellows, be issued with No. 23 of the Journal.

<u>Printing of the Rev. W. C. Ley's Plates</u>. - It has been agreed that Mr. Ley be requested to pay £5 towards the expense of printing the plates, Mr. Scott having undertaken to collect the remainder from the Members of Council.

<u>Report of the Observation Committee</u>. - The Committee has received the accompanying Report of the Observation Committee and recommends it to the attentive consideration of the Council.

<u>Report of Referees on Papers</u>. - The Committee recommends that blank forms be sent to the Referees for a written expression of their opinion as to the reading and printing of the Papers.

Signed Henry Storks Eaton
Chairman

<u>October 2nd 1877.</u>

Observation Committee.

The following Report of the Observation Committee was read:-
"The Observation Committee has carefully considered Mr. Symons's report upon the inspection of stations, and recommends the payment of his expenses up to date viz £12-15-0.
"It has also discussed the cost of the reduction of the observations at, and the inspection of, the Society's stations, which it finds to be so considerable as to leave scarcely any time and money available for the other objects of the Society. It is further of opinion that it is scarcely right to allow its Inspector to continue to devote so much of his time without remuneration.
"It therefore feels that it is incumbent upon it to suggest that the payment for the detailed observations on the large form of £5 per annum should be increased, and it recommends that these facts be laid before the Council with the following suggestions:-
(1) "That application be made to the new Meteorological Council for reconsideration of the £5 payment with a suggestion that it be raised to £7-10-0.
(2) "That application be made to the new Meteorological Council for a vote in aid of the cost of inspection of stations."

Signed " Henry Storks Eaton
"October 2nd 1877." " Chairman "

After much discussion, on the motion of Dr. Mann, it was resolved:- "That the President be authorized to communicate with the Meteorological Council (in such way as seems to him best) with the view of bringing under their notice the insufficiency of the payments at present made to the Society for observations, and the desirability of getting some modification of the existing arrangements."

The President was requested to especially point out

that the cost of inspecting these stations should form an element in the consideration of the sum voted by the Council.

The Charter and the sale of Funded Property.

A copy of the correspondence between Mr Harvey Simmonds and Dr Tripe (see Minutes of last Meeting) having been refered to Mr Brewin, he replied that he thought the Council were entitled to sell the new 3 per Cents without calling a General Meeting of the Society, but
H.S.E. as the Charter is not perfectly clear, he thought it would be advisable in future to obtain the consent of the Fellows assembled in General Meeting, and that the matter had better be mentioned at the next Annual
H.S.E. Meeting if any sale be proposed on the part of the Council

Mr Brewin read the draft of a letter in reply to Mr Simmonds which it was agreed should be sent.

Life Composition Fees.

It was proposed by Mr Brewin, seconded by Dr Tripe and resolved that the Treasurer do not make any more investments of the Life Compositions without an order being passed by the Council in each case for him to do so

The Council then adjourned.

Henry Storks Eaton

## November 21st 1877

Council Meeting held at 25 Great George Street,

Present. - H. S. Eaton, President, in the chair.

| | | |
|---|---|---|
| J. K. Laughton | R. H. Scott | C. Greaves |
| R. J. Mann. | S. Bicknell | W. C. Nash |
| C. V. Walker | A. Brewin | W. Sowerby |
| H. Perigal | C. Brooke | H. Toynbee |
| G. J. Symons | E. E. Dymond | G. M. Whipple |
| J. W. Tripe | R. Field | |

Minutes. -

The Minutes of the last Meeting were read and confirmed.

Finance -

Balance - The Balance in hand was reported to be

| | |
|---|---|
| At Bank | £138 - 5 - 9 |
| In hands of Assistant Secretary | 2 - 7 - 6 |
| | £ 140 - 13 - 3 |

Bankruptcy of T. W. Grindle. - A notice was read stating that a General Meeting of the creditors of Mr T. W. Grindle (who owes the Society £3) would be held at Hertford on Nov 29th at 12 o'clock. It was resolved that no action be taken in the matter.

Resignations. - The resignations of the following gentleman were read and accepted: - Colonel F. Bolton, F. J. Marriott and J. T. Woodhouse.

Deaths. - The deaths of Dr W. Reynolds and Mr C. Tarrant were announced.

Correspondence.

A. De Lubaosky. - A letter was read from Alexandre de Lubaosky, Ville de Viasma, Province Smolenska, Russia, asking the Society to establish three branches - one at Calcutta, one at Cape Town, and one at Sydney.
It was resolved that no action be taken in the matter.

G. Harvey Simmonds. – A letter was read from Mr G. Harvey Simmonds suggesting that "the Council at the next General Meeting should bring forward a Bye Law, making it obligatory on them in future to obtain the consent of the Fellows at a General Meeting to the application of the invested Funds of the Society towards meeting its expenditure, before it shall be lawful for them so to apply the Funds. And also that before the Council order any work to be undertaken, except the ordinary current work of the Society, they shall at a General Meeting explain to the Fellows the nature of the work and state the probable cost, and obtain the consent of the Fellows to undertake the work and to pay for the same ~~out~~ to the amount of the sum authorized, either out of the ordinary income of the Society, or from the sale of its invested Funds or from both these sources".

It was resolved that the letter be acknowledged and that Mr Simmonds be informed that the proper course will be for him to proceed himself in the matter in accordance with Bye Law 43.

Communications. –

Received. – "Note on a Peculiar Fog" by G. M. Whipple, F.R.A.S. On the recommendation of the Referee this paper was accepted for reading.

Referee's reports. – The following form to be sent to the Referees of Papers was adopted: (See next page)

Reports –

House Committee. – The following Report of the House Committee was read and adopted: –

"The House Committee has fixed the price of the October Number of the Quarterly Journal at 6/- and has authorized 150 copies of the Rev. W. C. Ley's Paper on Upper Currents to be printed for sale and distribution.

"The Committee recommends that Mons A. Poëy's name be restored to the Free List, and that the Society's pub-

*Private and Confidential.*]

# The Meteorological Society.

30 GREAT GEORGE STREET, WESTMINSTER, S.W.

______________, 18____

SIR,

The accompanying Original Communication, ____________________

____________________________________________

____________________________________________

has been referred to you; and I shall be obliged by a written expression of your opinion respecting the acceptance or rejection of the same, having regard to the questions at the foot of this note. The opinion you may give will be regarded as strictly confidential, and for the guidance of the Council alone.

I am,

Your obedient Servant,

*Assistant Secretary.*

*To* ____________________

1st. In your opinion is it desirable that the Paper should be accepted for reading at a Meeting of the Society, and be printed in the "Quarterly Journal," as containing useful information relating to—

*a.* The Climate and Meteorology of any country or place?

*b.* The theoretical principles, or the modes of calculation, involved in, or bearing on, any branch of Meteorology?

*c.* Experiments and observations connected with Meteorological Science?

*d.* Instruments for Meteorological observations?

*e.* Any subject kindred to, or allied with, the Science of Meteorology?

2nd. In your opinion is it desirable that any parts of the Paper should be omitted, altered, or abridged? If so, mark in pencil such parts as you think should be omitted or modified. Or would an *abstract* be sufficient to give all that is important in the Paper?

[You are requested to write your opinion on the opposite page, signing and dating the same with any observations you may wish to add.]

lications be sent from the date of its removal.
"The Rev. T. A. Preston having expressed the wish that his Report on the Phenological Observations might be read this year so as to appear in the January Number of the Quarterly Journal, the Committee recommends that it be read at the December Meeting.
(Signed) " Henry Storks Eaton,
"November 6th 1877 " Chairman "

Relation between the Society & the Meteorological Office. - The President reported that he had been in communication with Mr Scott, who had informed him that the Meteorological Council had considered the matter and were disposed to pay the Society the sum of £100 a year for returns, but that the question of making a grant for inspecting the stations was still under consideration.

It was proposed by Dr Mann, seconded by Dr Tripe, and resolved that application be made to the Meteorological Council for an additional grant of £30 for the current year.

Mr Russell's Thermometer. - Mr Whipple's report on his examination of Mr Russell's thermometer was received and ordered to be read at the Ordinary Meeting.

New List of Council. - It was resolved that a foot note be placed on the next notice of Ordinary Meeting stating that as the new List of Council would be prepared at the Council Meeting on the 19th December, it was requested that if any of the Fellows wished to suggest any names for the new Council they should send them in before that date.

The Council then adjourned.

Henry Storks Eaton

December 4th 1877.

Special Council Meeting held at 30 Great George Street.

Present. - H. S. Eaton, M.A. President, in the chair.

J. P. Harrison, R. H. Scott, R. Field
Sir A. Brady, A. Brewin, C. Greaves
G. J. Symons, C. Brooke, H. Toynbee
J. W. Tripe, E. E. Dymond

This Meeting was called to decide upon the following:-

I. To consider whether all the present stations should be continued after the end of this year as the Society's stations or whether others should be substituted.

II. To consider whether additional stations which have been offered shall be inspected and, if suitable, accepted.

III. If No II be decided upon what arrangements shall be made for the inspection?

IV. To consider the course to be adopted as to the printing of the records from all the accepted stations.

After much deliberation the Council resolved upon each question as follows:-

I (α) That the stations from which returns are sent to the Meteorological Office be ~~accepted~~ continued.

(β). That all the other inspected and accepted stations be continued.

II (α) That considering the financial condition of the Society the Council regret that they do not feel justified in accepting any fresh returns which will increase the expenditure of the Society.

(β.) Irish Stations. - That Mr Scott be requested to write to the Registrar General for Ireland to ascertain whether assistance can be obtained for discussing the Irish observations.

(γ) That a Circular be issued to the Fellows requesting special contributions for a Fund for

the discussion and publication of the returns from Stations besides those already discussed and reduced. No action to be taken unless the sum of £30 per annum at least be promised.

III. In consequence of No II not being decided upon No III fell to the ground.

IV (α) No action taken; it being understood that the Society will as a matter of course print the observations from all accepted stations.

(β) That Mr Colborne be informed that the observations from Kew and Greenwich are available for his purpose.

V. That a barometer be procured for lending to observers the cost of which is not to exceed £5; and that it be lent to Dr Power at Dartmoor, that station being one of unusual value from its altitude.

Henry Storks Eaton

December 19th 1877.

Council Meeting held at 25 Great George Street.

Present:- H. S. Eaton, President, in the chair,

| | | |
|---|---|---|
| J. P. Harrison | R. H. Scott | C. Greaves |
| J. K. Laughton | A. Brewin | W. C. Nash |
| H. Perigal | C. Brooke | T. A. Preston |
| G. J. Symons | E. E. Dymond | G. M. Whipple |
| J. W. Tripe | R. Field | |

Minutes.-

The Minutes of the Meetings of Nov. 21st and Dec 4th were read and confirmed.

Finance.-

Balance - The Balance was reported to be

| | |
|---|---|
| At Bank | £ 171 - 0 - 3 |
| In hands of Assistant Secretary | 1 - 0 - 2 |
| | £ 172 - 0 - 5 |

Bills passed - The following bills were ordered to be paid:-

| | | |
|---|---|---|
| Williams & Strahan | Quarterly Journal No. 24 | £ 35 - 5 - 0 |
| Do | Extra for Tabular Matter | 6 - 0 - 0 |
| Do | Printing & Stationery | 5 - 12 - 9 |
| Eyre & Spottiswoode | Quarterly Returns | 6 - 16 - 0 |
| Do | Stereo Plates of Observations {a sum not exceeding} | 10 - 0 - 0 |
| Malby & Sons | Lithography | 34 - 0 - 6 |
| J. Jennings | Refreshments | 9 - 2 - 0 |
| Beardmore & Barnes | Rent | 20 - 0 - 0 |

Resignation. - The resignation of D. A. Lord was read and accepted.

Discussion Fund.-

It was reported that about £10 had been promised towards the Discussion & Publication Fund.

Additional Assistant.-

Dr. Tripe having stated that Mr. Marriott had informed him that the work of the Office would be

more than the present staff could get through, at any rate for some months in the early part of the year, and that there would be a good balance both at the end of this and next year, proposed; Mr Symons seconded and it was resolved that a boy be engaged from the 1st of January at a sum not exceeding 8/- per week.

Relation between the Society & the Meteorological Office

The following letter was read:-

"Meteorological Office, 116 Victoria Street
"6 December 1877

"Sir,

"I am instructed by the Council to say that they are prepared to comply with the request of your Council, to increase, to the extent of Thirty Pounds (£30), the amount paid to the Society for the Returns supplied to the Meteorological Office for the year ending March 31st 1878.

"The question of allowance for Inspection &c. must be postponed till the next Financial year

"Yours faithfully
"Robert H. Scott
"Secretary"

"John W. Tripe Esq M.D.
"Council Secretary
"Meteorological Society"

Communications.-

Received. - On the recommendation of the referee the following paper was accepted for reading:-

"Notes on a Waterspout". By Capt. W. Watson.

To be printed.-

The following papers were ordered to be printed:-

1. Report of Mr Whipple on Mr Russell's Thermometer. (Small type)
2. "On the general character and principal sources of variation in the weather at any part of a cyclone or anticyclone". By the Hon. R. Abercromby. (With illustrations)
3. "The 'Arched Squalls' of the neighbourhood of the Trade Winds". By Capt. A. Schück. (Small type)
4. "On a remarkable Barometric Oscillation on

January 30th 1876. By R. H. Scott, F.R.S. (Small type)

Reports

House Committee – The following Report was read, and, with the exception of the last paragraph, adopted:–

"The House Committee has considered the question of salaries for next year and recommends that Mr Marriott have the amount agreed upon in January last, viz £135, and that the assistant computer have 13/6 per week.

"The Committee, having been informed that an important paper by Prof. Mohn, "On the Meteorological Observations made by the Norwegian Research Expedition in the North Atlantic in the Summers 1876 and 1877" had been received directly after the last Meeting, and that it was very desirable that it should come before the Society as soon as possible, has, on the recommendation of the Referee, accepted the paper and authorized it to be read at the December Meeting.

"The Committee recommends that the time of the Annual Meeting be curtailed to an hour and a half, to allow for conversation afterwards, and that additional refreshments be provided

(Signed) "Henry Storks Eaton

December 4th 1877. "Chairman"

Library Committee – The following Report was read and adopted:–

"The Library Committee beg to report that at their last Meeting their attention was drawn to the space occupied by various duplicates and non-meteorological works, and it was resolved to ask permission of the Council to dispose of the same.

"The Committee examined the lists of books purchased and approved of the same.

"Certain other books were ordered to be purchased.

December 19th 1877. (Signed) Henry Storks Eaton

Lighting Rod Committee.– The following Report was read and adopted:–

"Owing to various untoward circumstances the Lightning Rod Committee have not yet been able to prepare any manual for publication and they would suggest that a new Committee should be appointed by the in-coming Council.

December 19th 1877. (Signed) Henry Storks Eaton

Admission of Ladies as Fellows.–

The Rev. T. A. Preston having stated that a Lady, one of his best Phenological Observers, was desirous of joining the Society, it was decided to recommend to the Annual Meeting that Ladies be admitted as Fellows, and that a clause recording the recommendation be inserted in the Report of Council.

Officers and Council

The following List of Officers and Council for the ensuing year was adopted:–

# The Meteorological Society.

ESTABLISHED 1850. INCORPORATED BY ROYAL CHARTER 1866.

## BALLOTING LIST.

WEDNESDAY EVENING, JANUARY 16, 1878.

*TO BE PRESENTED IN PERSON ONLY.*

| Attendances at Meetings. Council. Eleven Meetings. | Ordinary Seven Meetings. | |
|---|---|---|
| | | *PRESIDENT.—One name to be returned.* |
| 11 | 7 | *Charles Greaves, M. Inst.C.E., F.G.S.* .. .. .. .. .. |
| | | *VICE-PRESIDENTS.—Four names to be returned.* |
| 9 | 6 | *Henry Storks Eaton, M.A.* .. .. .. .. .. .. |
| 5 | 2 | James Park Harrison, M.A. .. .. .. .. .. .. |
| 7 | 5 | Robert James Mann, M.D., F.R.A.S. .. .. .. .. |
| 7 | 3 | Charles Vincent Walker, F.R.S., F.R.A.S. .. .. .. |
| | | *TREASURER.—One name to be returned.* |
| 6 | 6 | Henry Perigal, F.R.A.S. .. .. .. .. .. .. .. |
| | | *TRUSTEES.—Two names to be returned.* |
| 1 | 0 | Sir Antonio Brady, F.G.S. .. .. .. .. .. .. |
| 1 | 0 | Stephen William Silver, F.R.G.S. .. .. .. .. |
| | | *SECRETARIES.—Two names to be returned.* |
| 11 | 7 | George James Symons .. .. .. .. .. .. .. |
| 11 | 7 | John W. Tripe, M.D. .. .. .. .. .. .. .. |
| | | *FOREIGN SECRETARY.—One name to be returned.* |
| 8 | 7 | Robert H. Scott, M.A., F.R.S. .. .. .. .. .. |

| | | COUNCIL.—*Twelve names to be returned.* | |
|---|---|---|---|
| — | — | *Honourable Ralph Abercromby* .. .. .. .. .. .. .. | |
| 10 | 5 | Arthur Brewin, F.R.A.S. .. .. .. .. .. .. .. | |
| 10 | 6 | Charles Brooke, M.A., F.R.S., F.R.C.S. .. .. .. | |
| 9 | 6 | Edward Ernest Dymond .. .. .. .. .. .. .. .. | |
| — | — | *William Ellis, F.R.A.S.* .. .. .. .. .. .. .. | |
| 7 | 5 | Rogers Field, B.A., M. Inst. C.E. .. .. .. .. .. | |
| 8 | 6 | *John Knox Laughton, M.A., F.R.A.S.* .. .. .. .. | |
| — | — | *Rev. William Clement Ley, M.A.* .. .. .. . .. | |
| — | — | *Richard Strachan* .. .. .. .. .. .. .. .. .. | |
| — | — | *Henry Samuel Tabor* .. .. .. .. .. .. .. .. | |
| 7 | 4 | Capt. Henry Toynbee, F.R.A.S. .. .. .. .. .. .. | |
| 9 | 7 | George Mathews Whipple, B.Sc., F.R.A.S. .. .. | |

*N.B.—The names of newly proposed Officers and Members of Council are printed in italics.*

Fellows may erase any name, or names, from the **BALLOTING LIST**, and may substitute the name, or names, of any other person, or persons; but the number of names on the List, after such erasure or substitution, must not **EXCEED** the number to be elected to the respective offices as above enumerated. Those Lists which do not accord with these directions will be **REJECTED** by the Scrutineers, and the votes will consequently be lost.

Report of Council.—

The draft of the Report of Council to the Annual General Meeting was read. It was resolved that it be set up in type and forwarded to the Members of Council for approval and suggestions.

General Business.—

The thanks of the Council were voted to the Royal Botanic Society for 400 copies of the Abstract of Meteorological Observations made at their gardens 1871-1876, which had been forwarded for distribution among the Fellows.

The Council then adjourned

Henry Storks Eaton

January 16th 1878.

Council Meeting held at 25 Great George Street, S.W.

Present:- H. S. Eaton, M.A., President in the chair.

| | | |
|---|---|---|
| J. P. Harrison. | G. J. Symons | A. Field |
| J. K. Laughton | J. W. Tripe | C. Greaves |
| R. J. Mann. | R. H. Scott | T. A. Preston |
| C. V. Walker. | A. Brewin | H. Toynbee |
| H. Perigal | C. Brooke | G. M. Whipple. |
| S. W. Silver | E. E. Dymond | |

Minutes.

The Minutes of the last Meeting were read and confirmed.

Finance.

Balance Sheet.- The Balance Sheet for the year 1877, as passed by the Auditors and showing a balance of £83-15-5, was read.

Estimate for 1878.- The following Estimate of Income and Expenditure for the current year was read (see next page). Estimate for 1878

Balance.- The Balance was reported to be

| | |
|---|---|
| At Bank | £242-14-0 |
| In hands of Assistant Secretary | 11-1-8 |
| | £253-15-8 |

Discussion & Publication Fund.-

Guarantees amounting to £17-15-0

Resignations.- The resignations of Dr. I. Ashe, Mr. J. Mann, and Mr. J. Rickett were read and accepted.

Deaths.- The deaths were announced of Mr. J. Bravender and Dr. D. Butter.

Candidates proposed.-

The names of three Candidates for admission into the Society were read and their certificates ordered to be suspended, viz:-

# Estimate for 1878

| Receipts | £ | s | d |
|---|---|---|---|
| Dividends – M. S. & L. R. | 35 | 11 | 0 |
| " New 3 Per Cents | 6 | 5 | 10 |
| Subscriptions for 1878 | 250 | 0 | 0 |
| " Arrears | 60 | 0 | 0 |
| " New Fellows & Entrances | 50 | 0 | 0 |
| Sale of Publications | 16 | 0 | 0 |
| Meteorological Office | 105 | 0 | 0 |
| Contributions towards Rev. W. C. Ley's & Dr. Marcet's Plates | 19 | 5 | 0 |
| Balance from 1877 | 83 | 15 | 5 |
| £ | 625 | 17 | 3 |
| | 83 | 15 | |
| | 542 | 2 | 3 |
| ? Discussion & Publication Fund | | | |
| ? Grant for Inspection | | | |
| ? Extra Stations | | | |

| Expenditure | £ | s | d |
|---|---|---|---|
| Journal | 130 | 0 | 0 |
| Printing circulars &c | 18 | 0 | 0 |
| " List of Fellows | 8 | 10 | 0 |
| Stationery | 5 | 0 | 0 |
| Books & Bookbinding | 15 | 0 | 0 |
| Assistant Secretary | 136 | 0 | 0 |
| Two computers | 66 | 0 | 0 |
| Rent & Housekeeper | 29 | 0 | 0 |
| Furniture & Coals | 12 | 0 | 0 |
| Postage | 30 | 0 | 0 |
| Parcels & Petty expenses | 10 | 0 | 0 |
| Refreshments | 11 | 0 | 0 |
| Printing Observations & Registrar General's Returns | 30 | 0 | 0 |
| " Observations for 1876 | 9 | 0 | 0 |
| Barometer | 7 | 0 | 0 |
| £ | 496 | 10 | 0 |
| ? Inspection of Stations. | | | |

William Berridge
W. Malachi Burke. F.R.C.P.
Prof. John Eliot.

Correspondence.

Irish Stations. - The correspondence between Mr Scott and the Registrar General for Ireland respecting a grant in aid of extending the sphere for the meteorological observations to Ireland was read. The reply of the Registrar General was to the effect that he had no funds at his disposal for such a purpose, but after some further correspondence he authorized Mr Scott to propose him as a Fellow of the Society.

Communications

Received. - The following papers had been received and on the recommendation of the referees were accepted for reading (No 2 in abstract only):-

1. "Notes on the occurrence of Globular Lightning and of Waterspouts in Co. Donegal, Ireland".
By M. Fitzgerald (Communicated by R. H. Scott, F.R.S.)
2. "Observations of Rainfall at Sea".
By Dr W. J. Black (Communicated by G. J. Symons)
3. "On the Winter Climate of some English Sea-side Health Resorts"
By Dr J. W. Tripe.

To be printed. - The following papers were ordered to be printed:-

1. "Notes on the Meteorology and Physical Geography of the West Coast of Africa, from Cape Verd to the Cape of Good Hope".
By Commander E. Bourke. R.N.
2. "On the Meteorological Observations made by the Norwegian Research Expedition in the North Atlantic in the summers of 1876 and 1877" (With Illustrations)
By Prof. H. Mohn, Hon. Mem. M.S.
3. "Report on the Phenological Observations made

during 1877.

By the Rev. T. A. Preston. M. A.

4. Note on a peculiar Fog. (Small type)

By G. M. Whipple, B. Sc., F. R. A. S.

Report.

House Committee. The following Report was read and adopted with the exception of that part referring to the printing of the List of Fellows, the consideration of which was postponed to the next Meeting:-

"The House Committee has to report that a youth - E. J. Horstman - has been engaged from the 7th instant at a salary of 7/- per week.

"The House Committee has considered the List of Defaulters, and has instructed the Assistant Secretary to inform those who are 2 years or more in arrears (with certain exceptions) that if the arrears be not paid before the 31st instant, their names will not appear in the new List of Fellows, which it is recommended should be printed on that date.

"The Committee has ordered a mahogany Table to be purchased at a sum not exceeding £4-10-0

(Signed) Henry Storks Eaton"

Chairman

Vote of Thanks to the President.

On the motion of Dr. Tripe the thanks of the Council were unanimously voted to the retiring President (Mr. Eaton) for the ability and courtesy with which he had presided over their Meetings during the last two years.

The Council then adjourned.

[signature]

February 20th 1878.

Council Meeting held at 25 Great George Street

Present:- C. Greaves, President, in the chair.

H. S. Eaton, R. H. Scott, R. Field,
R. J. Mann, R. Abercromby, J. K. Laughton,
C. V. Walker, A. Brewin, R. Strachan
S. W. Silver, C. Brooke, H. S. Tabor
G. J. Symons, E. E. Dymond, H. Toynbee
J. W. Tripe, W. Ellis, G. M. Whipple

Minutes.-
The Minutes of the last Meeting were read and confirmed.

Finance.-
Balance- The Balance was reported to be

| | |
|---|---|
| At Bank | £ 323 - 5 - 6 |
| In hands of Assistant Secretary | 13 - 18 - 8 |
| | £ 337 - 4 - 2 |

Bills passed- The following bills were ordered to be paid:-

| | |
|---|---|
| L. P. Casella - Standard Barometer | £ 5 - 5 - 0 |
| Eyre & Spottiswoode - Stereo plates of observations for 1876 | £ 11 - 6 - 0 |

Death- The Foreign Secretary reported the death of Prof. H. V. Regnault, Honorary Member. It was resolved that a letter of condolence be sent to the family.

New List of Fellows.-
It was resolved that a new List of Fellows be printed and that 1000 copies be struck off.

Communications.-
Received- The following papers had been received:-
1. "On the application of Harmonic Analysis to the reduction of Meteorological Observations and on the general methods of Meteorology".
By the Hon. R. Abercromby
2. "Meteorological Method".

By Prof. Wm. Blasius.

3. "On some peculiarities in the migration of Birds in the Autumn and Winter of 1877-78."

By John Cordeaux.

4. "Meteorology of Mozufferpore, Tirhoot, for the year 1877."

By C. H. Pearson.

On the recommendation of the Referees Nos 1, 3, and 4, were accepted for reading, but No. 2 was declined in its present form.

No. 3 was ordered to be temporarily loaned to Mr. Scott.

Reports.

Station Committee. The following Report was read:-

1. The Station Committee regrets to have to report that the observations at Hawes ceased on December 31st last, the Rev. Dr. Parker having shortly to remove to Nuneaton.

2. The Committee has considered the desirability of increasing the number of stations and hopes to be able to organize a system of 30 stations, which will be fairly distributed over the country, - the distance between stations to be not less than 20 miles.

3. With regard to the inspection, the Committee considers it desirable that it should be done by the Assistant Secretary, and is of opinion that (except in special cases) the stations need only be inspected once in every two years.

4. The Committee recommends that the observations be printed quarterly in the "Journal", instead of yearly as formerly; that the stations be grouped in months; and that a yearly summary be added, - the stereo plates of daily observations for Strathfield Turgiss will be obtained as hitherto from the Meteorological Office.

5. The Committee has considered a letter from the

Secretary of the Meteorological Council asking the Society to supply the Office with Weekly Observations of Max. and Min. Temperatures and Rainfall from six of its stations, and recommends that the information be supplied, but that the schedules be forwarded by the observers direct to the Society and not to the Office. The question of payment has been referred to the House Committee for consideration.

(Signed) Charles Greaves
Chairman.

Paragraphs 1. 2. 3 and 5. were adopted.

Paragraph 4. It was resolved that the observations be published quarterly to begin with January 1878, and that the stations be grouped in months. The question of the form in which the observations should be printed was postponed till the next Meeting, the Station Committee in the interval to prepare alternative forms for consideration.

House Committee.

The following Report was read and adopted:—

The House Committee has considered the letter from the Secretary of the Meteorological Council referred to it by the Station Committee, respecting the supply of Weekly observations from six of the Society's stations, and recommends that the information be supplied at a charge of 1/- per week, the Office to pay the cost of postage and printing.

The Committee has considered the List of Fellows in arrears, and recommends that the following be removed from the List:—

| | |
|---|---|
| J. C. C. Bromfield | G. Humphreys |
| J. Brown | H. Kains-Jackson |
| I. Fletcher | E. R. Morgan |
| I. W. Grindle | F. E. Twemlow. |
| G. Gardiner | |

A letter having been received from Mr Wesley asking whether advertisements and catalogues could be inserted in the Quarterly Journal, the Committee recommends that advertisements be received, the charge to be £2 per page, and that catalogues of scientific works also be admitted by special contract. The advertisements and catalogues must however be approved by the Editing Committee.

The Committee recommends that Papers when accepted and deemed of sufficient importance to be printed in extenso should be set up in type before being read, and that 25 copies be printed off by the Monday preceding the Meeting.

(Signed). Charles Greaves
Chairman.

Election of Committees.

House Committee

It was resolved that that the House Committee consist of 9 persons and that the Members be:-

Mr Greaves, President.
Mr Symons } Secretaries
Dr Tripe } Secretaries
Mr Scott } Secretaries
Dr Mann
Mr Brooke
Mr Eaton
Mr Strachan
Mr Sabor.

Station Committee.-

It was resolved that the Station Committee consist of 7 persons, and that the Members be:-

Mr Greaves. President
Mr Abercromby
Mr Eaton

Mr. Ellis
Mr. Scott
Mr. Symonds
Mr. Whipple

Editing Committee

It was resolved that the Editing Committee consist of 3 persons, and that the Members be:—
Dr. Mann,
Mr. Laughton
Mr. Scott

Lightning Rod Committee.

The question of the reappointment of the Lightning Rod Committee was postponed till the next Meeting.

The Council then adjourned until 5 o'clock on Wednesday, the 20th March.

Charles Greaves

March 20th 1878.

Council Meeting held at 25 Great George Street.

Present:– C. Greaves, President, in the chair.

| | | |
|---|---|---|
| H. S. Eaton | R. Abercromby | R. Field |
| R. J. Mann | A. Brewin | R. Strachan |
| H. Perigal | C. Brooke | H. S. Tabor |
| G. J. Symons | E. E. Dymond | H. Toynbee |
| J. W. Tripe | W. Ellis | G. M. Whipple |
| R. H. Scott | | |

Minutes–
The Minutes of the last Meeting were read and confirmed–

Finance–
Balance– The Balance was reported to be

| | |
|---|---|
| At Bank | £346 - 14 - 9 |
| In hands of Assistant Secretary | 4 - 18 - 6 |
| | £ 351 - 13 - 3 |

Bill passed.– The following bill was ordered to be paid:–
G. Evans– for Woodcuts £5 - 1 - 0

Deaths– The following deaths were reported:–
J. W. Bosanquet, G. V. Vernon, and Padre A. Secchi, Hon. Mem.

Correspondence–
Rev. E. V. Pigott.– A letter was read from the Rev. E. V. Pigott, asking whether the Society wished to have observations from Ceylon, and if so, whether they would supply the observer with instruments.
It was resolved that he be referred to Colonel Fryers.

Communications
Received.– The following papers had been received and on the recommendation of the referees were accepted for reading:–
1. "On the daily Inequality of the Barometer

By W. W. Rundell, F. M. S.

2. Account of the Atmospheric disturbance which took place in Lat. 21°N, and Long. 25°W.

By J. H. Cardew.

Report.-

Station Committee - The following Report was read:-

1. "The Station Committee recommends that the sum of £50 be allowed for the present year for the cost of inspecting all the stations, and that application be made to the Meteorological Council for a grant of £25 towards that amount.

2. "The Committee also recommends that the sum of £15 be placed at its disposal for the purchase of the necessary instruments to be used in the inspection of the stations.

3. "The Committee has provisionally accepted the following stations, viz:-

| | |
|---|---|
| Bath | Cowes. |
| Carlisle | Gainford, Darlington |
| Cheltenham | Lowestoft. |
| Chester | Shrewsbury. |

and has recommended that they be started without waiting for the inspection provided that no difficulty appears to arise in correspondence.

4. "In accordance with the recommendation of the Council, the Committee has prepared two additional forms for the quarterly publication of observations, viz (1) the international form compressed, and (2) the international form compressed and reduced.

(Signed) "Charles Greaves,

"Chairman"

Paragraph 1. was adopted, with the exception that it was resolved that application should be made to the Meteorological Council for £25 annually.

Paragraphs 2 and 3 were adopted.

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[International Form, Compressed and Reduced.]

Abstract of Meteorological Observations for the Month of January, 1876.

| Stations. | Mean of Pressure at 9 a.m. and 9 p.m. | Air Temperature. | | | | | | | | | Temp. of Wet Bulb | | Relative Humidty | | Amount of Cloud. | | Rainfall. | | | Weather, No. of days of. | | | | | Wind, No. of Observations of | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Means of. | | Absolute Min. and Max. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 9 a.m. | 9 p.m. | Mean. | Min. | Max. | Min. | Date. | Max. | Date. | 9 a.m. | 9 p.m. | 9 a.m. | 9 p.m. | 9 a.m. | 9 p.m. | Total. | Greatest Fall. | Date. | Rain, Snow or Hail. | Snow only. | Clear Sky. | Overcast. | Gale. | N. | NE. | E. | SE. | S. | SW. | W. | NW. | Calm. |
| | In. | ° | ° | ° | ° | ° | ° | | ° | | In. | In. | | | | | In. | In. | | | | | | | | | | | | | | | |
| Audley End ...... | 30·301 | 34·7 | 35·4 | 35·1 | 29·6 | 41·9 | 12·5 | 12 | 55·2 | 28 | ·186 | ·159 | 93 | 94 | 6·5 | 5·5 | 1·77 | ·64 | 21 | 10 | 5 | 3 | 10 | 0 | 3 | 12 | 7 | 7 | 3 | 13 | 0 | 4 | 19 |
| Buxton .......... | 30·275 | 34·0 | 35·4 | 34·7 | 29·5 | 40·9 | 16·5 | 19 | 52·4 | 28 | ·181 | ·184 | 91 | 87 | 8·0 | 7·8 | 1·78 | ·30 | 2 | 14 | 10 | 1 | 20 | 0 | 6 | 4 | 4 | 4 | 3 | 9 | 9 | 7 | 11 |
| Carmarthen ...... | 30·243 | 40·0 | 39·5 | 39·8 | 34·6 | 45·9 | 21·0 | 9 | 54·8 | 28 | ·225 | ·272 | 88 | 90 | 6·8 | 6·7 | 3.11 | ·95 | 20 | 12 | 0 | 4 | 13 | 0 | 8 | 9 | 5 | 5 | 7 | 9 | 3 | 0 | 14 |
| Dartmoor ........ | 30·342 | 34·9 | 35·4 | 35·2 | 30·8 | 30·9 | 17·6 | 6 | 49·6 | 28 | ·200 | ·203 | 96 | 95 | 7·8 | 7·5 | 3·91 | ·92 | 30 | 14 | 3 | 2 | 17 | 4 | 7 | 8 | 6 | 6 | 15 | 6 | 2 | 3 | 8 |
| Hawes ......... | 30·254 | 35·8 | 36·2 | 36·0 | 30·9 | 41·7 | 16·3 | 9 | 51·6 | 28 | ·192 | ·193 | 88 | 87 | 8·0 | 6·0 | 3·11 | 1·16 | 19 | 21 | 9 | 3 | 19 | 0 | 2 | 4 | 2 | 2 | 1 | 19 | 8 | 1 | 21 |
| Marlborough .... | 30·291 | 35·6 | 36·0 | 35·8 | 31·1 | 42·0 | 19·9 | 9 | 53·3 | 3 | ·206 | ·208 | 99 | 98 | 8·4 | 7·4 | 2·51 | 1·51 | 21 | 11 | 4 | 1 | 14 | 0 | 3 | 2 | 3 | 3 | 8 | 5 | 6 | 3 | 23 |
| Strathfield Turgiss | 30·296 | 36·2 | 35·4 | 35·8 | 29·3 | 43·2 | 15·5 | 8 | 56·5 | 31 | ·199 | ·192 | 90 | 89 | 8·3 | 7·9 | 10·89 | ·25 | 21 | 8 | 4 | 1 | 16 | 0 | 7 | 12 | 7 | 7 | 4 | 10 | 4 | 4 | 7 |

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Chas. Greaves.

The Council then adjourned.

By W. W. R

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Report.-

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"Chairman"

Paragraph 1 was adopted, with the exception that it was resolved that application should be made to the Meteorological Council for £25 annually.

Paragraphs 2 and 3 were adopted.

Paragraph 4. After much discussion it was resolved that the following be the form for the quarterly publication of observations. (See accompanying slip)

House Committee.

The following Report was read and adopted:-

"The House Committee recommends for the approval of the Council the names of the following gentlemen for proposal as Honorary Members, viz:-

Mons. H. Marié Davy, Montsouris Observatory, Paris;
Capt. N. Hoffmeyer, Copenhagen;
Prof. D. Ragona, Modena: and
Dr. A. Wojeikoff, St. Petersburg.

"The Committee has authorized the printing of Dr. Tripe's Paper "On the Winter Climate of some English Seaside Health Resorts," so that copies may be in the hands of the Fellows at the Meeting on the 20th instant.

"The Committee in ordering the printing of the separate copies of the Rev. T. A. Preston's Report on the Phenological Observations for 1877, has requested that the type be kept standing, as the Council may wish that further copies be struck off for distribution to Farmers &c.

(Signed) "Henry Storks Eaton.
"Chairman."

Recognition of Mr. Symons's Services

"On the motion of Dr. Tripe, it was resolved that it be referred to the House Committee to consider and report what recognition should be made by the Council of Mr. Symons's services as the Inspector of the Society's Stations during the years 1874-77.

Charles Greaves

The Council then adjourned.

April 17th 1878.

Council Meeting held at 25 Great George Street.

Present: C. Greaves, President, in the chair.

| | | |
|---|---|---|
| H. S. Eaton. | R. H. Scott | J. K. Laughton |
| C. V. Walker | A. Brewin | R. Strachan |
| H. Perigal | E. E. Dymond | H. S. Tabor |
| G. J. Symons | W. Ellis | H. Toynbee |
| J. W. Tripe | R. Field | G. M. Whipple. |

Minutes.-
The Minutes of the last Meeting were read and confirmed.

Finance-
Balance.- The Balance was reported to be

| | |
|---|---|
| At Bank | £ 306 - 18 - 3 |
| In hands of Assistant Secretary | 17 - 17 - 5 |
| | £ 324 - 15 - 8 |

Bills passed.- The following bills were ordered to be paid:-

| | |
|---|---|
| Williams & Strahan - General Printing | £ 7 - 17 - 6 |
| L. P. Casella - Altazimuth | £ 5 - 5 - 0 |

Death.- Mr. Symons reported the death of Mr. W. P. Dymond. It was resolved that a letter of condolence be sent to the relatives.

Communications-
Received.- The following papers had been received:-
1. "Observations of Sea Temperatures at slight Depths".
By Capt. W. F. Caborne, F.M.S.
2. "The Climate of Lundy Island".
By A. J. H. Crespi, B.A., M.R.C.S.
3. "On the Auroral or Magnetic Cirrus".
By the Rev. S. Barber, F.M.S.
The above papers were accepted for reading. No. 3 however was ordered to be referred back to the author

to modify certain portions marked by the Referee.

To be printed.

The following papers were ordered to be printed in small type:-

1. "Note on a Waterspout."
By Capt. W. Watson, F.M.S.

2. "Notes on the occurrence of Globular Lightning and of Waterspouts in Co. Donegal, Ireland".
By M. Fitzgerald.

3. "Observations of Rainfall at Sea (Abstract)
By W. T. Black.

4. "Note on a supposed Waterspout in the Ochil Hills, Perthshire" (Abstract) Newspaper extract.

Reports.

Station Committee.

The following Report was read and adopted:-

"The Station Committee has to report:-

"1. That a letter has been received from the Meteorological Office stating that unless Hawes is replaced by another station in the North of England by the time of rendering the Returns for April, a proportional reduction will have to be made in the monthly charge. The Society not having a suitable station in the North of England, the Committee has resolved that Eastbourne be accepted, provided the inspection is satisfactory, and offered to the Meteorological Office in place of Hawes.

"2. That it has fixed the allowance to be paid to the Inspector as follows:- 2nd class by Rail, 1st class by Steamer; 20/- per day with night, and 10/- per day without night.

"3. That it recommends that a general summary of the Weather of the Quarter be printed in addition to the monthly tables of observations.

(Signed) "Charles Greaves.
"Chairman."

House Committee.

The following Report was received:—

"The House Committee recommends that an application be made to the general body of Fellows for subscriptions towards the cost of a Testimonial to be presented to Mr. Symons in recognition of his services rendered during the years 1876–77 in inspecting the stations and instruments of the Society. The said subscriptions to be limited.

(Signed) "Charles Greaves
"Chairman"

It was proposed by Mr. Dymond, seconded by Dr. Tripe, and resolved:—"That the Testimonial take the form of a Photographic Album containing portraits of the subscribers and other Fellows of the Society. That the subscriptions shall not exceed the sum of 5/- from each subscriber".

The Council then adjourned.

Charles Greaves

May 15th 1878.

Council Meeting held at 25 Great George Street.

Present – C. Greaves, President, in the chair.

H. S. Eaton. R. Abercromby. R. Field
R. J. Mann. A. Brewin R. Strachan
C. V. Walker. C. Brooke H. S. Tabor
G. J. Symons E. E. Dymond H. Toynbee
J. W. Tripe W. Ellis G. M. Whipple
R. H. Scott.

Minutes.–

The Minutes of the last Meeting were read and confirmed.

Finance.–

Balance.– The Balance was reported to be

| | |
|---|---|
| At Bank | £ 328 – 17 – 1 |
| In hands of Assistant Secretary | 2 – 6 – 2 |
| | £ 331 – 3 – 3 |

Bills passed.–

J. J. Hicks – Instruments for Inspection £ 7 – 10 – 0
Williams & Strahan – Printing Journal No. 25 £ 35 – 18 – 0

Deaths.–

The following deaths were reported viz – Rev. J. Crompton, Mr. H. Johnson, and Dr. B. Thomas.

Communications.–

Received:– The following had been received:–

1. "Contributions to the Meteorology of Natal."
By R. J. Mann, M.D., F.R.A.S.
2. "Aerial Waves."
By Daniel Dewar.
3. "Mean Relative Humidity at the Royal Observatory."
By William Ellis, F.R.A.S.
4. "Method of sometimes determining the amount of the Diurnal Variation of the Barometer on any particular day."
By the Hon. R. Abercromby, F.M.S.

5. "Note on the great Rainfall of April 10th 11th as recorded at the Royal Observatory, Greenwich".

By William Ellis. F.R.A.S.

On the recommendation of the Referees the above papers were accepted for reading, with the exception of No. 2 which was declined as unsuitable.

To be printed.

The following papers were ordered to be printed:-

1. "On the application of Harmonic Analysis to the reduction of Meteorological Observations, and on the general methods of Meteorology".

By the Hon. R. Abercromby, F.M.S.

2. "On some peculiarities in the migration of Birds in the Autumn and Winter of 1877-78."

By John Cordeaux.

Report.

House Committee. The following Report was adopted:-

"The House Committee has authorized the printing of Mr Ellis's abstract of Mr Rundell's paper "On the Daily Inequality of the Barometer", so that copies may be in the hands of the Fellows at the Meeting on the 15th instant".

(Signed) "Charles Greaves.

"Chairman"

Lightning Rod Conference.

"On the motion of Mr Symons it was resolved: "That the House Committee be instructed to address the following Societies, viz.-

Institution of British Architects,

Physical Society,

Society of Telegraph Engineers.

asking them to nominate delegates to co-operate in considering the desirability or otherwise of issuing a general code of rules for the erection of Lightning

Conductors, and to proceed in preparing a code if it is thought desirable".

The following were appointed Delegates from this Society:- Messrs Brooke, Dymond and Symons.

Notice of Motion.

Mr Brewin gave notice that at the October Meeting he would call attention to the working of the Society's Committees.

The Council the adjourned.

Charles Greaves(?)

June 19th 1878.

Council Meeting held at 25 Great George Street. S.W.

Present. – C. Greaves, President: in the chair.

| | | |
|---|---|---|
| H. S. Eaton, | G. J. Symons | R. Field |
| J. P. Harrison, | J. W. Tripe | J. K. Laughton. |
| R. J. Mann, | R. H. Scott | R. Strachan |
| C. V. Walker, | E. E. Dymond | H. S. Tabor |
| H. Perigal | W. Ellis | G. M. Whipple. |

Minutes. –

The Minutes of the last Meeting were read and confirmed.

Finance.

Balance. The Balance was reported to be

| | |
|---|---|
| At Bank | £ 282 - 9 - 1 |
| In hands of Assistant Secretary | 1 - 15 - 5 |
| | £ 284 - 4 - 6 |

Bills passed. The following bills of Messrs Williams and Strahan were ordered to be paid: –

| | |
|---|---|
| Printing List of Fellows | £ 11 - 5 - 0 |
| Printing Quarterly Journal No. 26. | £ 21 - 13 - 6 |
| General Printing & Stationery | £ 6 - 9 - 9 |

Deaths. – The deaths of the following Fellows were announced: – A. S. Hobson, D. Knapping, and G. G. G. F. Pigott.

Correspondence.

Honorary Members. The Foreign Secretary read letters of thanks from Mons. Marié Davy, Capt. Hoffmeyer, Prof. D. Ragona, and Dr. A. Woeikoff for the honour of being elected Honorary Members of the Society.

Secchi's Observatory on the Stelvio. – The Foreign Secretary laid on the table a communication from Padre Denza announcing that the Italian Meteorologists intend dedicating to the memory of Padre Secchi

the Observatory on the Stelvio, and that in future it will be called Secchi's Observatory on the Stelvio.

It was resolved that this communication be read at the Ordinary Meeting.

Communications.

Received. The following paper was received and on the recommendation of the referee, accepted for reading:—

"Notes on some remarkable cloud formations accompanying sudden and frequent changes of temperature and wind".

By Capt. W. Watson, F.M.S.

Mr Rundell's Paper. It was resolved that Mr Rundell's paper, "On the Daily Inequality of the Barometer" be referred to Mr Scott to ascertain whether the Meteorological Council are disposed to print it; the printing of the abstract in the meanwhile to be deferred.

To be printed. The following papers were ordered to be printed:—

1. "Meteorology of Mozufferpore, Tirhoot, for the year 1877".
By C. H. Pearson, F.M.S. (With one page of Tables)

2. "Note on the great Rainfall of April 10-11, as recorded at the Royal Observatory, Greenwich".
By W. Ellis, F.R.A.S.

3. "Observations of Sea Temperatures at slight Depths."
By Capt. W. F. Caborne, F.M.S.

Papers to be read tonight. It was resolved that the Papers read to-night be referred to the House Committee with power to order their publication. Subsequently however it was arranged that they be submitted to the Council at their Meeting to be held on the 9th prox.

Reports.

House Committee. The following Report was read and adopted:—

"The House Committee has to report:-
"(1.) That on the recommendation of the Referee, it has accepted the following paper for reading on the 19th instant; viz "On the relative duration of Sunshine at the Royal Observatory, Greenwich, and at the Kew Observatory, during the year 1877"; by G. M. Whipple, F.R.A.S.
"(2.) That having been informed that the Station Committee wishes to recommend an improvement in the quarterly summary of the weather, the Committee has authorized the April No. of the Journal to be issued without the summary and tables for the first quarter.
"(3.) That the Committee has resolved to increase the salary of the Junior Assistant – E. J. Horstmen – from 7/- to 8/- per week after the end of June

(Signed) "Charles Greaves
"Chairman".

<u>Station Committee</u>.- The following Report was read:-
"The Station Committee has to report:-
"(1.) That letters have been received from the Meteorological Office announcing (a) "that the sum of £25 will be allowed for defraying part of the cost of the Inspection of the Society's stations in the current year, and a further sum of £100 for monthly Returns from 14 stations (as at present) for the year ending 31st March 1879"; and (b) that observations from Llandudno will be taken in place of Hawes.
"(2.) The following stations have been inspected since the last Report:-

| | | |
|---|---|---|
| Buxton | Downside | Lowestoft |
| Caterham | Eastbourne | Mansfield |
| Cheadle | Hereford | Marlborough |
| Cheltenham | Hillington | Shrewsbury |
| Chester | Llandudno | Strathfield Turgiss. |

"(3.) That the Committee has passed the Tables and

Summary of the Weather for the quarter ending March 31st, but recommends that the occasional phenomena,- such as thunderstorms, snow, hail, rain, fog, halos, &c- be arranged in a tabular form with symbols. Mr Eaton has undertaken to prepare these Tables for the first quarter.

"(Signed) Charles Greaves.
"Chairman"

Paragraph 1. It was resolved that the thanks of the Society be given to the Meteorological Council for the kind way in which they have met the Society's request.

Paragraph 3. It was resolved that the International symbols be used, and that special type be obtained at a cost not exceeding £9, the matrices to be the property of the Society.

Mr Eaton and Mr Tabor having offered to assist in examining the returns, their offer was accepted with thanks.

Symons' Testimonial-

On the motion of Dr Tripe, it was resolved that the following 5 persons, viz:-

The President
Dr Tripe
Mr Dymond
Mr Eaton
Mr Field

be appointed a Committee to carry forward the Symons Testimonial, and that they report to the October Meeting of the Council.

Lectures on Meteorology-

The President said that as it was almost impossible without an immense deal of reading up, to know what has been done in the various branches of Meteorology, he thought this knowledge could be best imparted by a series of Lectures, and if the Council approved of

this plan, he was willing to become responsible for all expenses up to £100.

The President's proposal was carried by acclamation.

It was resolved that a Committee be appointed consisting of

The President.
Dr Mann.
Mr Eaton,
Mr Laughton,
Mr Scott,
Mr Symons

to consider the best way of carrying out the President's proposal, and that they report to an extra Meeting of the Council to be held on July 9th.

The Council then adjourned.

Charles Greaves

July 9th 1878.

Council Meeting held at 30 Great George Street.

Present. C. Greaves, President, in the chair.

| | | |
|---|---|---|
| H. S. Eaton | G. J. Symons | W. Ellis |
| R. J. Mann | J. W. Tripe | J. K. Laughton |
| C. V. Walker | R. H. Scott | R. Strachan |
| H. Perigal | A. Brewin | G. M. Whipple |

Minutes.

The Minutes of the last Meeting were read and confirmed.

Finance.

Balance. The Balance was reported to be.

| | |
|---|---|
| At Bank | £ 220 - 2 - 10 |
| In hands of Assistant Secretary | 11 - 6 - 5 |
| | £ 231 - 9 - 3 |

Quarterly Accounts. An Abstract of Receipts and Payments for the quarter ending June 30th, and an Estimate of Revenue and Expenditure to December 31st, were submitted showing an estimated balance on Decr. 31st of £ 88 - 4 - 5.

Resignation. The resignation of Dr. R. T. H. Bartley was read and accepted.

Correspondence.

Dr. A. Woeikoff. A letter was read from Dr. A. Woeikoff, stating that he was about to publish a work on the Climates of the World, and wished to know if it could be printed in parts in the Quarterly Journal.

It was resolved that he be informed that the Journal could not be used for such a purpose, and that he be recommended to apply to the Editor of "Nature".

Lightning Rod Conference. A letter was read from the Secretary of the Physical Society, announcing that the Council had nominated Prof. W. G. Adams, F.R.S. and Prof. G. C. Foster, F.R.S. to represent the Society on the Committee of Delegates.

Communications.

To be printed. The following papers were ordered to be printed:-

1. "The Climate of Lundy Island". By A. J. H. Crespi. (One page)
2. "On the Auroral or Magnetic Cirrus". By the Rev. S. Barber.
3. "Contributions to the Meteorology of Natal". By Dr. Mann.
4. "Note on the Mean Relative Humidity at the Royal Observatory, Greenwich". By W. Ellis.
5. "On a method of sometimes determining the amount of the Diurnal Variation of the Barometer on any particular day". By the Hon. R. Abercromby. (With Woodcut)
6. "On the relative duration of Sunshine at the Royal Observatory, Greenwich, and at the Kew Observatory, during the year 1877". By G. M. Whipple. (With Woodcuts)
7. "Account of the Atmospheric Disturbance which took place in Lat. 21° N. & Long. 25° W. on Jany 27-28. 1877". By J. H. Cardew.
8. "Notes on some remarkable cloud formations accompanying sudden & frequent changes of temperature and wind". By Capt. W. Watson.

Report of Lecture Committee.

The Committee met on the 3rd instant and took into their careful consideration the reference made to them by the Council. They have unanimously arrived at the following conclusions:-

I. Six Lectures to be delivered on Thursday evenings, commencing Oct. 31, and terminating Dec. 5. Lectures not to exceed one hour each in duration.

II. Application to be made to the London University for the use of its theatre for the Lectures.

III Fellows and visitors to be admitted on signing the attendance book as at Ordinary Meetings, the public by tickets obtainable at the Society's Library.

IV. The Lectures to be advertised in "Nature", and the "Athenaeum" weekly from Oct. 1st. till further orders.

V. The following were adopted as suitable subjects for Lectures, provided that the Council did not think it advisable to go outside the Society for Lecturers:-

1. "Nature, and Physical Properties of the Atmosphere".
2. "Air Temperature, its geographical distribution and range".
3. "Air Pressure, Wind and Storms".
4. "Clouds and Weather Signs".
5. "Rain, Snow, Hail, and Electricity".
6. "The Nature, Methods, and General Objects of Meteorology".

(Signed) Charles Greaves.
Chairman.

The above Report was read and adopted, with the following additions:-

1. The Society reserves to itself the right to print and publish the matter of the Lectures in its Journal as a part of its proceedings.
2. The Lectures to commence at 8 o'clock and be open to ladies.
3. The Syllabuses to be printed beforehand for the use of the Lecturers in order to prevent overlapping.
4. The Committee to be reappointed, with power to add to their number.
5. The final appointment of the Lecturers to be in the hands of the President.

The Council then adjourned.

Charles Greaves

## October 16th 1878.

Council Meeting held at 30 Great George Street.

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Present:- C. Greaves, President, in the Chair,

| | | |
|---|---|---|
| H. S. Eaton, | C. Brooke, | W. C. Ley, |
| R. J. Mann, | E. E. Dymond, | R. Strachan, |
| H. Perigal, | W. Ellis, | H. S. Tabor, |
| G. J. Symons, | R. Field, | H. Toynbee, |
| J. W. Tripe, | J. K. Laughton | G. M. Whipple |
| A. Brewin, | | |

Minutes

The Minutes of the Meeting held on July 9th were read and confirmed.

Finance.-

Balance.- The Balance was reported to be

| | |
|---|---|
| At Bank | £ 193 - 17 - 10 |
| In hands of Assistant Secretary | 2 - 0 - 0 |
| | £ 195 - 17 - 10 |

Bills passed.- The following bills were ordered to be paid:-

| | |
|---|---|
| Williams & Strahan - Journal No. 27 | £ 26 - 13 - 6 |
| Malby & Son - Lithography | £ 7 - 18 - 6 |
| Type Founding Co - Symbols | £ 10 - 6 - 9 |

Fellows.

Candidates proposed.- The names of the following Candidates for admission into the Society were read and their certificates ordered to be suspended:-

| | |
|---|---|
| Rev. T. L. Almond | W. L. Fox. |
| Rev. T. C. Beasley | R. Tennent |
| G. Chatterton | H. Yool. |
| E. Easton | |

Resignation.- The resignation of Mr. E. Field was read and accepted.

Deaths.- The deaths of Dr. H. Pearde and Sir F. M. Williams were announced.

Correspondence.

C. V. Walker - A letter was read from Mr C. V. Walker, stating that as he lived so far from London, he was unable to attend the Meetings, and that he wished therefore to resign his office of Vice-President.

The Council expressed their great regret that Mr Walker had tendered his resignation, which under the circumstances they felt themselves reluctantly compelled to accept.

Sir G. B. Airy - A letter was read from Sir G. B. Airy forwarding an Abstract of Mr Chambers' recent work on the "Meteorology of the Bombay Presidency, and expressing the hope that it might be printed in the Journal.

It was resolved that Sir G. B. Airy be thanked for his communication and that the Abstract be dealt with in the same way as a Paper and read before the Society.

E. Stanford - A letter was read from Mr E. Stanford requesting that he might become Publisher for the Quarterly Journal. (See House Committee Report)

Institute of British Architects - A letter was read from the Secretary of the Royal Institute of British Architects announcing that Prof. Lewis and Mr J. Whichcord had been nominated to represent that Institute at the proposed Lightning Rod Conference.

Communications.

Mr Rundell's paper - No reply having been received from the Meteorological Council as to whether they would undertake the printing of Mr Rundell's paper "On the Daily Inequality of the Barometer", or not, it was resolved that the matter be left in the hands of the Editing Committee.

Papers received. - The following papers, on the recommendation of the Referees, were accepted for reading:-

1. "Up-Bank Thaws". By the Rev. F. W. Stow, M.A., F.M.S.

2. "Comparison of Thermometric Observations made on

Watson & communicated by Capt.

board ship". By Capt. ~~H. Toynbee~~. F.R.A.S.

A paper entitled "Meteorology—Luni-Solar Theory", by Mr J. F. D'Oyley was, on the recommendation of the Referee, declined as unsuitable for reading before the Society.

Phenological Report.— It was resolved that the Rev. T. A. Preston's "Report on the Phenological Observations for 1878" be read at the next Ordinary Meeting.

House Committee.—

The following Report of the House Committee was read:—

1 "The Committee having been informed that Mr E. Stanford, of Charing Cross, was desirous of becoming a publisher of the Quarterly Journal, has advised him to send in a written application, which the Committee submits for the consideration of the Council.

2 "The Committee recommends that a circular be issued to Farmers and certain Members of the Royal Agricultural Society, inviting them to become Fellows. Mr Symons has undertaken to see the Secretary of the Royal Agricultural Society, and to draft a Circular, which will be submitted to the Council."

(Signed) "Charles Greaves,
" Chairman "

Paragraph 1. It was resolved that Mr Stanford become a publisher of the Quarterly Journal, and that his name appear on the wrapper.

Paragraph 2. It was resolved that a Circular be issued to all the Members of the Royal Agricultural Society at a cost not exceeding £25. The final drafting of the circular was left to Mr Symons.

Station Committee.

The following Report of the Station Committee was read:—

1. "The Station Committee has to report that the Remarks on the Weather, with the Tables and Symbols for the first two quarters have been printed in the Journal

and trusts that they will meet with the approval of the Council
2. "All the Stations, 26 in number, have been inspected by the Assistant Secretary, whose Report (appended) the Committee refers to the Council.
3. "The sum expended in the inspection of the stations has been £53-7-6, which is slightly in excess of the amount allowed by the Council; the Committee, however, recommends that the difference £3-7-6 be paid.
4. "Mr S.H. Miller has returned the Anemometer lent to him in 1873, and desires his thanks to be communicated to the Council for the use of the same.
5. "The Committee now recommends that the Anemometer be lent to Dr Power for erection on Dartmoor, provided he will have it suitably mounted, and send a copy of the readings to the Society."

(Signed) "Charles Greaves.
"Chairman"

Paragraph 2. It was resolved that the Report on the Inspection of the Stations be referred back to the Committee for further report.
Paragraph 3. The sum of £3-7-6 was ordered to be repaid to the Assistant Secretary.
Paragraph 5. Mr Whipple undertook to examine the Anemometer, and if found satisfactory, it was decided that it be lent to Dr Power.

Lecture Committee.

The following Report of the Lecture Committee was read and adopted:-

"The Committee has met several times since the last Council Meeting, and has made all the necessary arrangements for the Lectures, which it trusts will meet with the approval of the Council.
"I. The President, on the recommendation of the Committee, has appointed the following gentlemen

to lecture on the subjects approved by the Council, viz:–

1. Dr. R. J. Mann, F.R.A.S. "The Physical Properties of the Atmosphere".

2. J. K. Laughton, F.R.A.S. "Air Temperature, its Distribution & Range".

3. R. Strachan. "The Barometer and its Uses, Wind and Storms".

4. Rev. W. Clement Ley, M.A. "Clouds and Weather Signs".

5. G. J. Symons, F.R.S. "Rain, Snow, Hail and Atmospheric Electricity".

6. R. H. Scott, F.R.S. "The Nature, Methods and General Objects of Meteorology".

"II. The Committee, having been informed that the use of the theatre of the London University could not be obtained, applied to the Council of the Institution of Civil Engineers for the use of their large room for the purposes of the Lectures. This has been readily granted on the understanding that admission to the Lectures is to be free, and by Ticket only, except to a Member (of any class) of the Institution, who may make himself known to the Clerk in charge and express his desire to be present at the Lectures.

"III. The Lectures are to be delivered in the order given above on Thursday evenings, October 31st, November 7th, 14th, 21st, 28th, and December 5th at Eight O'clock.

"IV. The Committee has ordered 1000 copies of the Syllabus and 1000 Tickets to be printed, and one of each to be forwarded to the Fellows of the Society.

"V. The Lectures will be advertised in "Nature", "The Athenaeum", "Symons's Magazine", "Times", & Pall Mall Gazette.

(Signed) "Charles Greaves."
Chairman.

Symons' Testimonial Committee.

The following Report of the Symons Testimonial Committee was read and adopted:–

"Your Committee have to report that 177 Fellows of this Society have subscribed £43-0-6, and that £5 has been promised making an aggregate of £48-0-6; also that 160 Fellows have sent Photographs for insertion

in the Album. They have also to report that at a Meeting held on the 1st instant, they inspected a Presentation Album submitted to them by Dr. Tripe, heard a statement from Mr. Offer who is accustomed to carry out such work, and decided to recommend that the Album be in one Volume, bound in the same manner as the one submitted with which Mr. Symons was much pleased. They now submit that the illumination of the address (copy of which is appended), the mounting of the Photographs, and the binding be entrusted to Mr. Offer, and that the work be carried out under the superintendence of Dr. Tripe, at a cost not exceeding £60."

(Signed) "Charles Greaves
"Chairman"

After consideration it was agreed to leave the wording of the Address to the President, Dr. Mann, Dr. Tripe and Mr. Eaton, by whom it was amended as follows:-

"Presented by a large number of Fellows of the Meteorological Society, to George James Symons, F.R.S., Member of Council and Chairman of the Exhibition Committee of the Royal Botanic Society, Member of Council of the French Meteorological Society &c in friendly recognition of the valuable work done by him for the Society by inspecting its stations and testing the instruments used by the observers, independently of the services rendered by him as one of the Secretaries for several years."

Mr. Brewin's Motion. - Mr. Brewin postponed his motion with respect to the working of the Society by Committees, until the next Meeting, when the Council will meet at five o'clock.

The Council then adjourned. Chas Greaves.

November 20th 1878.

Council Meeting held at 25 Great George Street.

Present:- C. Greaves, President, in the Chair.

| | | |
|---|---|---|
| H. S. Eaton. | R. H. Scott | W. C. Ley |
| J. P. Harrison | A. Brewin | R. Strachan |
| R. J. Mann | C. Brooke | H. S. Tabor |
| H. Perigal | E. E. Dymond | H. Toynbee |
| G. J. Symons | W. Ellis | G. M. Whipple |
| J. W. Tripe | J. K. Laughton | |

Minutes.
The Minutes of the Meeting of October 16th were read and confirmed.

Finance.
Balance - The Balance was reported to be

| | |
|---|---|
| At Bank | £ 164 - 7 - 0 |
| In hands of Assistant Secretary | - 9 - 8 |
| | £ 164 - 16 - 8 |

Bill passed - The following bill was ordered to be paid:-
R. W. Munro - Calipers for measuring Raingauges £ 4 - 5 - 0

Computers.- Notice to leave by T. C. Evans, the senior computer was read and accepted. The engagement of another computer was left to the Officers.

Deaths.- The deaths of J. Curtis and A. H. Leycester were announced.

Correspondence.
Society of Telegraph Engineers - A letter from the Secretary of the Society of Telegraph Engineers was read announcing that the Council has nominated Mr. J. Latimer Clark and Mr. W. H. Preece as delegates to represent that Society at the proposed Lightning Rod Conference.

Communications.
Mr. Rundell's paper.- Mr. Scott stated that the Meteorological Council did not feel justified in undertaking

the printing of Mr Rundell's paper "On the Daily Inequality of the Barometer". After some discussion it was resolved to vote the sum of £10 towards the cost of this paper.

Received. The following papers were accepted for reading and printing:-

1. "Abstract of Mr Chambers' work on the Meteorology of the Bombay Presidency". Communicated by Sir G. B. Airy, K.C.B.
2. "Report on Lowne's Anemometer". By Capt. W. Watson, F.M.S.
3. "Six Months' Observations at Calvinia, South Africa". By R. J. Marks, F.M.S. (In abstract)
4. "Meteorology of Bangkok, Siam". By J. Campbell.
5. "Observations on the relations of Temperature of the Atlantic during the month of March". By P. H. Reinsch.
6. "Summary of Observations taken at Buenos Ayres, 1874-5-7". By W. B. Tripp.

House Committee

The following Report of the House Committee was read and adopted:-

"The House Committee recommends that it be referred to the Editing Committee to consider and report upon the prices now paid for separate copies of papers, the number of copies in stock, and how many have been sold.

"The Committee recommends that the Quarterly Journal be made up as a yearly volume and that the current volume close with No 28.

"The Committee recommends that the Royal Agricultural Society be placed on the Exchange List.

"Charles Greaves.

"Chairman".

Station Committee.

The following Report of the Station Committee was read and adopted:-

"The Committee has considered the Report on the Inspection of the Stations and recommends that the details of the new stations only be printed, that the preliminary Remarks be reconsidered and extended, and that they form part of the Report of the Council.

"The Committee recommends that a paragraph be inserted in the Report of the Council stating that the observations of terrestrial radiation are numerous but that the instruments are not sufficiently uniform for the results to be strictly comparable, and that better observations are very desirable for future publication and discussion.

"The Committee recommends that the solar radiation observations be published and that Mr. Tabor be requested to undertake the discussion.

"The Committee also recommends that the Earth temperature observations be published.

"The Committee is not agreed as to the desirability of continuing the publication of the daily observations from Strathfield Turgiss after 1877, and refers the matter to the Council.

"Charles Greaves,
"Chairman"

It was resolved that the publication of the daily observations from Strathfield Turgiss be discontinued after 1877.

Printing of Lectures.-

Dr. Mann submitted the following terms for the publication of the Lectures:-

"That the course of Meteorological Lectures be printed as a Volume by Mr. Stanford, the Publisher of the Society, subject to the following conditions:-

1. An edition not exceeding 2000 copies to be issued by the new year.

2. The Publisher to take all charge of production, provided engraved illustrations are not used, and to pay a Royalty of 10 per cent. on the sale price.

3. The copyright of the Lectures to remain with the authors.

4. The publisher to have the right of printing subsequent editions upon the same terms only, so far modified as to make the Royalty of such editions £15 per cent. on sale price.

5. The authors undertake to lend their names to any proceedings that the Publisher may deem it necessary to take for preventing infringement of his rights."

On the motion of Mr Dymond it was resolved that the terms of publication suggested by Dr Mann, be approved and adopted subject to such modifications as the Lecture Committee and the authors of the Lectures may agree upon, and provided that no expense be incurred by the Society.

Mr Brewin's Motion. – Mr Brewin called attention to the working of the Society by Committees, and said that when the new Committees were appointed he would move that all the Committees, except the Editing, be merged into one, to be called the C.G General Purposes Committee, ~~which should have no executive functions~~.

The Council then adjourned.

Charles [illegible]

December 18th 1878.

Council Meeting held at 25 Great George Street.

Present - C. Greaves, President in the Chair.

H. S. Eaton, R. H. Scott, J. K. Laughton
R. J. Mann, A. Brewin, R. Strachan
H. Perigal, E. E. Dymond, H. S. Tabor
G. J. Symons, W. Ellis, H. Toynbee
J. W. Tripe, R. Field, G. M. Whipple.

Minutes.

The Minutes of the Meeting of November 20th were read and confirmed.

Finance

Balance - The Balance was reported to be

| | |
|---|---|
| At Bank | £ 194 . 15 . 6 |
| In hands of Assistant Secretary | 4 . 7 . 0 |
| | £ 199 . 2 . 6 |

Bills passed - The following bills were ordered to be paid:-

| | |
|---|---|
| Williams & Strahan - Journal No. 28 | |
| Do Printing, Stationery &c. | |
| Eyre & Spottiswoode - Stereo Plates & Quarterly Returns | 19 . 2 . 0 |
| J. Jennings - Refreshments | 9 . 2 . 6 |
| Beardmore & Barnes - Rent | 20 . 0 . 0 |

Deaths - The deaths of Sir J. P. Orde and T. B. Wright announced.

Resignation. - The resignation of E. M. Wrench was read and accepted.

Ordinary Meeting in January. -

As it was stated that there were 20 candidates to be proposed this evening, it was resolved that an Ordinary Meeting be held in January a quarter of an hour before the Annual Meeting for the election of new Fellows.

Correspondence. -

Mr. Rundell – A letter was read from Mr. Rundell in he proposed in consideration of his supplying the whole of the illustrations for his Paper that the Council shall pay ~~the~~ whole of the cost of the letter-press.

It was resolved that the previous resolution of Nov. 20th be superseded, and that Mr. Rundell's offer be accepted.

Mr. Scott – A letter was read from Mr. Scott forwarding the Programme and Bye Laws of the Meteorological Congress to be held at Rome in April next.

It was resolved that the Programme be referred to the Station Committee for consideration and report.

Mr. Binnie – A letter was read from Mr. Binnie asking that the Journal may be presented to the Bradford Free Reference Library.

It was decided that the request could not be complied.

Communications –

To be printed. – The following papers were ordered to be printed:–

1. "Report on the Phenological Observations for 1878". By the Rev. T. A. Preston (With Map – not exceeding £2-10-0)
2. "Up-Bank Thaws." By the Rev. F. W. Stow.
3. "Comparison of Thermometric Observations made on board Ship". By Capt. W. Watson.

House Committee Report –

The following Report was read:–

1 "The House Committee recommends that the Society of Telegraph Engineers be placed on the Exchange List.

2 "The Committee has to report that a lad – T. C. Lewis – has been engaged as Computer at a salary of 7/- per week.

3 "The Committee recommends that a gratuity of £5-5-0 be given to the Assistant Secretary for the current year in consideration of the increase of work &c; and that the salary of the computer – E. J. Horstman – be increased to 10/- per week from January 1st.

4 "That committee recommends that the amount paid in towards the Discussion Fund £2-5-0 be refunded.

(Signed) "Charles Greaves.

Chairman"

Paragraphs 1, 2 and 3 were adopted, but with respect to paragraph 4, it was resolved that the amount paid in towards the Discussion Fund be carried to the general Fund.

Officers & Council –

The following List of Officers & Council for the ensuing year was adopted:–

# BALLOTING LIST.

**WEDNESDAY EVENING, JANUARY 15, 1879.**

*TO BE PRESENTED IN PERSON ONLY.*

| Attendances at Meetings. Council. Nine Meetings. | Ordinary. Seven Meetings. | |
|---|---|---|
| | | *PRESIDENT.—One name to be returned.* |
| 9 | 7 | Charles Greaves, M. Inst. C.E., F.G.S. .. .. .. .. |
| | | *VICE-PRESIDENTS.—Four names to be returned.* |
| 5 | 4 | *Charles Brooke, M.A., F.R.S., F.R.C.S.* .. .. .. |
| 8 | 7 | Henry Storks Eaton, M.A. .. .. .. .. .. .. |
| 2 | 1 | *Rev. William Clement Ley, M.A.* .. .. .. .. .. |
| 7 | 5 | *Capt. Henry Toynbee, F.R.A.S.* .. .. .. .. .. |
| | | *TREASURER.—One name to be returned.* |
| 6 | 5 | Henry Perigal, F.R.A.S. .. .. .. .. .. .. |
| | | *TRUSTEES.—Two names to be returned.* |
| 0 | 0 | Sir Antonio Brady, F.G.S. .. .. .. .. .. .. |
| 1 | 1 | Stephen William Silver, F.R.G.S. .. .. .. .. .. |
| | | *SECRETARIES.—Two names to be returned.* |
| 9 | 7 | George James Symons, F.R.S. .. .. .. .. .. .. |
| 9 | 7 | John W. Tripe, M.D. .. .. .. .. .. .. .. |
| | | *FOREIGN SECRETARY.—One name to be returned.* |
| 8 | 6 | Robert H. Scott, M.A., F.R.S. .. .. .. .. .. |
| | | *COUNCIL.—Twelve names to be returned.* |
| 8 | 6 | Arthur Brewin, F.R.A.S. .. .. .. .. .. .. |
| 8 | 7 | Edward Ernest Dymond .. .. .. .. .. .. .. |
| 9 | 7 | William Ellis, F.R.A.S. .. .. .. .. .. .. |
| 7 | 5 | Rogers Field, B.A., M. Inst. C.E. .. .. .. .. .. |
| — | — | *Rev. Charles Henry Griffith* .. .. .. .. .. .. |
| — | — | *William John Harris, M.R.C.S.* .. .. .. .. .. |
| 2 | 3 | *James Park Harrison, M.A.* .. .. .. .. .. .. |
| 7 | 4 | John Knox Laughton, M.A., F.R.A.S. .. .. .. .. |
| — | — | *Robert James Lecky, F.R.A.S.* .. .. .. .. .. |
| — | — | *Honourable Francis A. Rollo Russell* .. .. .. .. |
| 9 | 7 | Richard Strachan .. .. .. .. .. .. .. .. |
| 8 | 7 | Henry Samuel Tabor .. .. .. .. .. .. .. .. |

*N.B.—The names of newly proposed Officers and Members of Council are printed in italics.*

Report of Council.

The draft of the Report of Council was read. It was resolved that the draft be referred to the House Committee for revision, then set up in type and distributed to all the Members of Council for further suggestions & corrections, such suggestions to be ~~incorporated~~ 14 days before the General Meeting.

The Council then adjourned. C. [illegible]

forwarded to the Council Secretary

January 15th 1879

Council Meeting held at 25 Great George Street.

Present:- C. Greaves, President, in the chair,

~~H. Perigal~~ R. H. Scott. R. Field
H. S. Eaton A. Brewin R. Strachan
R. J. Mann. C. Brooke H. S. Tabor
G. J. Symons E. E. Dymond H. Toynbee
J. W. Tripe W. Ellis G. M. Whipple

Minutes.

The Minutes of the Meeting of December 18th were read and confirmed.

Finance.

Balance Sheet. The Balance Sheet for the year 1878, as passed by the Auditors, showing a balance of £73-0-8, was read.

Estimate for 1879. The following estimate of Income and expenditure for the current year was read (see next page)

Balance. The balance in hand was reported to be £220-5-8.

Resignations. The resignations of Dr. A. Mackintosh and Mr. C. Pink were read and accepted.

Death. The death of Mr. John Brown was reported.

Fellows in arrear. The following names were ordered to be struck off the List of Fellows:-

Sir S. Canning;
T. Crawford;
T. L. ~~Johnson~~, ~~and~~
M. Jones.

Correspondence.

A letter was read from Capt. Marshall Hall respecting an investigation on the question of Solar Radiation in Switzerland. It was resolved that the letter

## Estimate for 1879

| | £ | s | d | | £ | s | d |
|---|---|---|---|---|---|---|---|
| Dividends | 41 | 13 | 0 | Journal - Printing | 160 | 0 | 0 |
| Meteorological Office:- | | | | Illustrations | 25 | 0 | 0 |
| Monthly Returns | 100 | 0 | 0 | Author's copies | 15 | 0 | 0 |
| Annual " | 2 | 10 | 0 | Registrar General's Reports | 8 | 0 | 0 |
| Weekly " | 2 | 10 | 0 | Printing &c. - General | 12 | 0 | 0 |
| Dr. Mann's paper on Natal | 4 | 2 | 0 | Stationery | 10 | 0 | 0 |
| Subscriptions:- | | | | Books & bookbinding | 15 | 0 | 0 |
| 1879 | 250 | 0 | 0 | Salaries - Assistant Secretary | 140 | 0 | 0 |
| Arrears | 60 | 0 | 0 | Computers | 47 | 0 | 0 |
| New Fellows & Entrance Fees | 100 | 0 | 0 | Office &c - Rent & Housekeeper | 28 | 10 | 0 |
| Sale of Publications | 15 | 0 | 0 | Coals, furniture &c | 7 | 0 | 0 |
| Balance from 1878 | 73 | 0 | 8 | Postage &c | 35 | 0 | 0 |
| | | | | Refreshments | 12 | 0 | 0 |
| | | | | Parcels & Petty Expenses | 5 | 0 | 0 |
| | | | | Inspection of Stations | 25 | 0 | 0 |
| | | | | | 544 | 10 | 0 |
| | | | | Estimated Balance Dec 31st 1879 | 104 | 5 | 8 |
| | 648 | 15 | 8 | | 648 | 15 | 8 |

be acknowledged and that he be requested to get into communication with the Swiss Meteorological Institute.

Communications.

Received. The following papers had been received:-

1. "On a Standard Cistern Siphon Barometer." By Frederick Bogen.
2. "Diurnal Variations of the Barometric Pressure in the British Isles". By Frederick Chambers.

3. "Method of filling Barometer tubes without boiling the mercury." By R. C. Power, F.M.S.
4. "Results of comparisons of Goldschmid's aneroids." By G. M. Whipple, B.Sc., F.R.A.S.
5. "On the relation existing between the duration of Sunshine, the amount of Solar Radiation, and the temperature indicated by the Black Bulb Thermometer in vacuo." By G. M. Whipple, B.Sc., F.R.A.S.

On the recommendation of the referees Nos. 1, 2, 4 and 5 were accepted for reading, but No. 3 was declined as unsuitable.

Reports - House Committee.

The following Report was read and adopted:-

"As there are now but few copies of the Journal remaining in hand after distribution to the Fellows and sales &c. and as there will be a considerable increase in the number of Fellows, the Committee recommends that in future 700 copies of the Journal be printed instead of 600 as heretofore. In the case of the Plates for Mr Rundell's Paper, the Society will have to pay for the additional 100 copies.

"The Committee has considered the List of Fellows in arrear, and recommends that a circular be prepared and sent to all defaulters of 2 years and over.

"The Committee has carefully revised the draft of the Report of Council, and ordered it to be set up in slips, and then forwarded to each Member of Council for suggestions &c.

"(Signed) Charles Greaves
Chairman"

Station Committee

The following Report was read and adopted:-

"The Committee has to report that the observations at Hreford were discontinued on December 31st, Dr Chapman being unable any longer to take the 9 p.m. readings; and that a new station at Bournemouth, Dr J. A. Compton's, has been accepted subject to the result of the inspection &c.

"As regards inspection the Committee does not consider it necessary that the old stations be inspected this year, except in special cases which seem to require it.

"As in a great many cases during the late severe weather the wet bulb thermometers have failed, the Committee recommends that a paragraph be inserted in the Report of Council calling attention to the great care required in the manipulation of the wet bulb thermometer in frosty weather.

(Signed)" Charles Greaves
"Chairman".

Report of Council.

The Report of Council, as revised, was read and after a few verbal alterations, was adopted.

Vote of thanks to the President.

On the motion of Dr Tripe, the thanks of the Council were unanimously voted to the President for the ability and courtesy with which he had presided over their Meetings during the past year.

The Council then adjourned.

Chas Greaves

February 19th 1879

Council Meeting held at 25 Great George Street.

Present -- C. Greaves. President. in the Chair.

| | | |
|---|---|---|
| C. Brooke. | G. J. Symons | W. Ellis |
| H. S. Eaton | J. W. Tripe | R. Field |
| W. C. Ley | R. H. Scott | J. K. Laughton |
| H. Toynbee | A. Brewin. | R. J. Lecky |
| H. Perigal | E. E. Dymond | H. S. Tabor. |

Minutes.-

The Minutes of the last Meeting were read and confirmed.

Finance.

Balance.- The Balance was reported to be

| | |
|---|---|
| At Bank | £ 319 - 16 - 2 |
| In hands of Assistant Secretary | 21 - 9 - 3 |
| | £ 341 - 5 - 5 |

Fellows in Arrear.

The Assistant Secretary reported that in accordance with the recommendation of the House Committee, adopted by the Council at their last Meeting, a circular had been prepared and sent to eleven Fellows who were in arrear for two years or more, asking them to send in the amounts due before the 19th instant, otherwise the Council would have to remove their names from the List of Fellows. Seven had paid all up. One - Capt. Colomb - had written to say that he sent a letter from China three or four years ago withdrawing from the Society; this letter never came to hand. The three following had not replied to the circular:- J. Colthurst, R. Pickwell, and Rev E. J. Stutter.

It was resolved that the following names be

removed from the List of Fellows:-
J. Colthurst,
R. Pickwell,
Rev. E. J. Stutter.

Resignations.- The following resignations were read and accepted:- Capt. H. P. Colomb, Capt. C. George, Rev. J. Huyshe, and C. L. Woodd.

Death.- The death of Mr Sopwith was announced. It was resolved that a letter of condolence be sent to Mrs Sopwith.

Correspondence.-

Mr W. T. Black.- A letter was read from Mr Black asking that the MS. of his paper on Rainfall at Sea might be returned to him.
It was resolved that the paper be lent to him, but that it must be returned when done with.

Communications.-

Received.- On the recommendation of the referees the following papers were accepted for reading:-

1. "Dew, Mist and Fog."
By G. Dines, F.M.S.
2. "On the Inclination of the Axes of Cyclones."
By the Rev. W. Clement Ley, M.A., F.M.S.
3. "Contributions to the Meteorology of the Pacific. No III. Samoan or Navigator Islands."
By R. H. Scott, M.A., F.R.S.

House Committee.-

The following Report was read and adopted:-
"Dr Tripe brought before the Committee a proposal as to the advisability of the Council selecting each year one or more subjects for discussion at the Society's Meetings, and suggested a paper on the relation between winds and currents at certain parts of the sea, and a

discussion of the observations of the temperature of the soil.

"The matter was mentioned to the Committee with the view of ascertaining whether it was worth while to bring the subject to the notice of the Council, as it is not desirable to waste the time of the Council unnecessarily. No conclusion was however arrived at.

"Mr Marriott was requested to prepare for submission to the Council a synopsis of materials available for a discussion of the temperature of the soil, and also to report whether he can undertake over-time work.

(Signed) "Charles Greaves
"Chairman"

It was resolved that it be referred to the General Purposes Committee to consider the subject of Mr Marriott's salary, work, overtime and assistants.

Station Committee.-

The following Report was read and adopted:-

"In accordance with the resolution of Council the Committee has considered the Programme of Questions to be discussed at the Meteorological Congress to be held at Rome in April next, but has no recommendation to make on the subject. Mr Scott has stated that a copy of the correspondence between the Foreign Office and the Meteorological Office respecting the appointment of delegates from this country, will be forwarded to the Society.

"A letter has been received from Mr Mawley requesting that his meteorological station at Addiscombe may become one of the Society's stations. The Committee recommends that in this case the resolution

fixing the nearest limit of stations to each other at 20 miles, be relaxed, and that Mr Mawley's station be accepted.

(Signed) " Charles Greaves.
"Chairman"

It was resolved that Mr Mawley be requested to pay a definite sum for the working up and publication of the observations from his station.

Appointment of Committees.—

It was resolved that the House and Station Committees be amalgamated and be called the General Purposes Committee.

The Committees were constituted as follows:—

General Purposes Committee.— 7 Members
The President,
Three Secretaries,
Mr Eaton,
Mr Ellis,
Mr Tabor.

Editing and Publication Committee.— 3 Members.
Mr Eaton,
Mr Laughton,
Mr Scott.

Meteorology of the North Atlantic.

The President had given notice of motion to the following effect: To memorialize the Meteorological Council to extend the investigation which is exhibited in their work, "Meteorology of the N. Atlantic during August 1873".

After some discussion it was resolved that the Council desire to record their sense of the value of the work done by the Meteorological Council in their investigation "Meteorology of the North Atlantic during August 1873"; and to express

the hope that the work may be continued.
A copy of this resolution to be forwarded to the Meteorological Council.

Meteorological Congress.

The Foreign Secretary read the copy of the correspondence between the Foreign Office and the Meteorological Office relative to the approaching International Meteorological Congress at Rome.
It was resolved that Mr. Scott be requested to act for the Society at the approaching Meteorological Congress at Rome.
A copy of this resolution to be forwarded to the Meteorological Council.

Symons Testimonial.—

The Album was exhibited and greatly admired for the beauty of the illuminations and the massiveness and taste displayed in the binding. The sum subscribed was £57-12-0.
It was resolved that £1-10-0 come out of the funds of the Society to complete the cost of the case for the Testimonial.

The Council then adjourned.

Charles Greaves.

March 19th 1879

Council Meeting held at 25 Great George Street.

Present - C. Greaves, President, in the chair,

| | | |
|---|---|---|
| H. S. Eaton, | J. W. Tripe, | R. Field, |
| W. C. Ley, | R. H. Scott, | J. K. Laughton, |
| H. Toynbee, | A. Brewin, | R. J. Lecky, |
| H. Perigal, | E. E. Dymond, | R. Strachan, |
| G. J. Symons, | W. Ellis, | H. S. Tabor. |

Minutes.-
The Minutes of the last Meeting were read and confirmed.

Finance.-
Balance.- The Balance was reported to be.

| | |
|---|---|
| At Bank | £ 386 - 16 - 2 |
| In hands of Assistant Secretary | 5 - 18 - 10 |
| | £ 392 - 15 - 0 |

Resignation.- The resignation of Dr W. S. Falls was read and accepted.

Death.- The death of Mr J. Waterhouse was announced.

Correspondence.-
Mrs Sopwith.- A letter was read from Mrs Sopwith thanking the Council for their vote of condolence passed at the last Meeting.

Duke of Manchester.- A letter was read from the Duke of Manchester offering to become a Fellow if an enquiry were made whether the weather during any period corresponds with what would have been predicted by the Rules of Astrology.

After some consideration, it was resolved, on the motion of Mr Scott seconded by Mr Brewin, "That his Grace the Duke of Manchester be informed that the Council regret that they do not at present see their way to the investigation of the truth of ancient

astro-meteorological predictions, as it would involve a larger expenditure of time and money than they have at their command".

Mr. Wilkin. – A letter was read from Mr. Wilkin presenting a Standard Barometer to the Society. It was resolved that the thanks of the Council be communicated to Mr. Wilkin for the barometer.

Communications. –

Printing. – The following papers were ordered to be printed:-

1. "Diurnal Variations of the Barometric Pressure in the British Isles". By F. Chambers (With Woodcut).
2. "On a Standard Cistern Siphon Barometer". By F. Bogen. (With Woodcut).
3. "On the relation existing between the duration of Sunshine, the amount of Solar Radiation, and the temperature indicated by the Black Bulb Thermometer in vacuo". By G. M. Whipple. (The question of the printing of the Plate was postponed; application to be made to the Kew Committee to assist in defraying the cost).
4. "Results of Meteorological Observations made at Buenos Ayres". By W. B. Tripp. (In abstract).

Received. – The following paper had been received, and, on the recommendation of the referee, was accepted for reading:-

"Meteorology of Mozufferpore, 1878." By C. N. Pearson.

General Purposes Committee. –

The following Report was read and adopted:-

"The Committee recommends that the sum to be paid by Mr. Mawley for the working up and printing of his observations be £2-2-0 per annum.

"The Committee has ordered 250 copies to be printed of the "Report on the Phenological Observations

for 1878" by the Rev. T. A. Preston".

"The Committee has also ordered that Mr Dines's paper on "Dew, Mist and Fog", and the Rev. W. C. Ley's paper "On the Inclination of the Axes of Cyclones" be set up in slip before being read at the Meeting on the 19th instant.

"(Signed) Henry Storks Eaton, Chairman."

It was resolved that a circular similar to that sent to the members of the Royal Agricultural Society be issued to the members of the Linnean and other Natural History Societies, the number not to exceed 250.

List of Fellows.

On the motion of Mr Eaton, it was resolved that the List of Fellows be printed up to date, and that in future the List be printed annually up to the time of the Annual Meeting. The List not to exceed 16 pages, and the type to be kept standing.

The Council then adjourned.

Charles Greaves

April 16th 1879.

Council Meeting held at 25 Great George Street.

Present:- C. Greaves, President in the chair.

| | | |
|---|---|---|
| H. S. Eaton, | A. Brewin, | W. J. Harris, |
| H. Toynbee, | E. E. Dymond, | R. J. Lecky, |
| G. J. Symons, | W. Ellis, | F. A. R. Russell, |
| J. W. Tripe, | R. Field, | R. Strachan. |

Minutes.-
The Minutes of the last Meeting were read and confirmed.

Finance.-
Balance - The Balance was reported to be

| | |
|---|---|
| At Bank | £ 438 - 10 - 0 |
| In hands of Assistant Secretary | 2 - 19 - 0 |
| | £ 441 - 9 - 0 |

Bills passed.- The following were ordered to be paid:-

| | |
|---|---|
| Messrs Williams & Strahan - Journal No. 29 | £ 56 - 17 - 2 |
| Do - Printing & Stationery | £ 7 - 11 - 9 |

Deaths.- The deaths of Dr H. W. Dove, Honorary Member, and Mr A. Forbes were announced.
It was resolved that a letter of condolence be sent to the family of Dr Dove.

Communications.-
Printing.- A letter was read from Mr Whipple stating that the Kew Committee were willing to defray half the cost of the Plate illustrating his paper on "Sunshine", providing the sum did not exceed £2-10-0.
It was resolved that the Plate be printed.
The following papers were ordered to be printed:-

1. "Dew, Mist and Fog." By George Dines.
2. "On the Inclination of the Axes of Cyclones." By the Rev. W. Clement Ley, M.A.
3. "Contributions to the Meteorology of the Pacific. No III

Samoan or Navigator Islands". By Robert H. Scott, F.R.S.

Received. The following papers had been received:-

1. "On observations of the Velocities of the Wind, and on Anemometers". By G. A. Hagemann.
2. "On the relation between the height of the Barometer and the amount of Cloud, as observed at the Kew Observatory". By G. M. Whipple, B.Sc., F.R.A.S.

It was resolved that these papers be accepted, handed over to the Editing Committee, and set up in slip for reading before the Society.

Editing Committee

The following Report was read:-

"The Committee recommends that the MS. of Papers to be submitted to the Society be carefully examined and revised before being printed with a view of reducing the cost of printing.

(Signed) "Robert H. Scott,
"Chairman"

On the motion of Mr. Eaton, seconded by Mr. Ellis, it was resolved "That all original Papers received by the Society be submitted to the next Meeting of Council, or Meeting of the General Purposes Committee, and be assigned by either body for the report of the majority of three referees, and upon approval by them shall be sent to the Editing Committee, for printing and distributing in proof among the Fellows, previous to reading and discussing them".

General Purposes Committee

The following Report was read and adopted:-

"The Committee has considered the subject of Mr. Marriott's salary, work, overtime, and assistants, and recommends (1) that the work go on as at

present. (2) that the salary remain as already settled, but (3) that a gratuity of £5 for the current half year be given to Mr. Marriott in consideration of his educating the lads to the work.

"The Committee has to report that the Meteorological Office has agreed to take observations from Cheltenham in the place of Hereford.

"The Committee, having been informed that the observations at Dartmoor were likely to cease, owing to the removal of Dr. Power and from other causes, instructed Mr. Marriott to go down at once and endeavour to save the station and observations.

"Mr. Ellis, having undertaken to examine the Solar Radiation Observations made at the Society's stations, the Committee has accepted his offer with thanks.

(Signed) "Charles Greaves,
Chairman"

Dartmoor. – The following Report of the Assistant Secretary was read and adopted:–

"In accordance with instructions from the General Purposes Committee I went to Dartmoor and found that the observations could not be carried on any longer by the present observers. After consultation with Dr. Power and Mr. Watt, the Prison Farm Bailiff, I went to Mr. Pender, the School Master, and he undertook to carry on the observations if the instruments were placed in his garden. As the instruments now in use are the prison property, they cannot go out of the officials' hands: I therefore promised that the Society would provide the instruments. Having selected a site for the instruments and given Mr. Pender some instruction, I left under the impression that the observations would be successfully carried on. A few days after however I received a letter from Mr. Watt

stating that Mr Pender declined to go on with the observations. I wrote back requesting Mr Watt to see if he could succeed in getting the young man (W. H. Tooker) at the Post Office to take the observations if a small sum was paid him for so doing. Tooker has agreed to take the observations for £2.2.0 per annum. With the approval of the President the instruments have been ordered and are now on the way."

Library.-

On the motion of Mr Field, it was resolved that a book be kept in the Library for the entry of any works that the Fellows consider it desirable should be obtained.

The Council then adjourned.

Charles Greaves

May 21st 1879

Council Meeting held at 25 Great George Street.

Present – C. Greaves, President, in the chair.

| | | |
|---|---|---|
| H. S. Eaton, | J. W. Tripe | J. K. Laughton, |
| W. C. Ley, | R. H. Scott, | R. J. Lecky, |
| H. Toynbee, | E. E. Dymond, | F. A. R. Russell, |
| H. Perigal, | W. Ellis, | R. Strachan, |
| G. J. Symons, | R. Field, | H. S. Tabor |

Minutes –

The Minutes of the last Meeting were read and confirmed.

Finance. –

Balance – The Balance was reported to be

| | |
|---|---|
| At Bank | £ 399 – 3 – 8 |
| In hands of Assistant Secretary | 28 – 2 – 4 |
| | £ 427 – 6 – 0 |

Bills passed – The following were ordered to be paid:–

L. P. Casella – Instruments for Dartmoor £ 6 – 10 – 6

Williams & Strahan – Printing List of Fellows £ 10 – 0 – 0

Removal of Names – It was reported that the names of two Life Fellows – C. R. Bradley, and T. H. Morgan – had been removed from the new List, their addresses not being known for more than 5 years.

Correspondence.

Foreign Office – A letter was read from the Foreign Office enclosing copy of a Despatch from Sir G. Wolseley containing certain proposals with regard to Meteorological Observations in Cyprus.

It was resolved that the copy of the Despatch be returned to the Foreign Office, as the Council believed it to have been sent to the Society in error, it evidently being intended for the Meteorological Office.

Mr. Scott – A letter was read from Mr. Scott, the Foreign Secretary, reporting his return from the Congress at Rome, and enclosing a copy of a preliminary Report on the Proceedings which had appeared in several newspapers.

Mr. Scott was requested to make a longer Report for reading at the next Ordinary Meeting.

Mr. Adie – A letter was read from Mr. R. Adie respecting the proposal to submerge the African Desert.

It was resolved that the letter lie on the Table.

Capt. Toynbee. – A letter was read from Capt. Toynbee forwarding Chart of Temperatures of the Atlantic taken by Capt. W. Watson

It was resolved that Capt. Toynbee's letter be accepted as a Paper, and that the Chart be reduced to a suitable size for insertion in the Journal.

General Purposes Committee –

The following Report was read: –

"1. The Committee has to report that Mr. W. H. Tooker has agreed to take the observations at Dartmoor for the sum of £2-2-0 per annum.

"2. The Assistant Secretary has inspected the stations at Croydon and Downside and found them to be in a satisfactory condition.

"3. Mr. Scott having stated that it had been resolved at the Roman Congress that a Catalogue of Meteorological works should be prepared, the Committee recommends that 2 copies of the Society's Library Catalogue be sent to each of the 15 persons named by Mr. Scott.

"4. The Committee has appointed Dr. Tripe, Mr. Gaster, and the Rev. C. H. Griffith, referees of the following paper: – "Thermometer Exposure – Wall versus Stevenson Screens," by W. Marriott.

(Signed) "Charles Greaves.

"Chairman"

Paragraphs 1&2 were adopted.

Paragraph 3. It was resolved that a copy of the Society's Library Catalogue be forwarded to the 15 persons named by Mr Scott, and that they be informed that further copies can be had at the cost of 2/6 each.

Paragraph 4. The Referees recommended that Mr Morris's paper be accepted and that a plan be added.

Communications.

Received.

1. "On the Hurricane at Mauritius on March 20-21, 1879."
By Dr C. Meldrum, F.R.S.
Referees:- Mr Lecky, Dr Tripe and Rev. W. C. Ley.

2. "On a remarkable disturbance of Barometric pressure observed at the Royal Observatory, Greenwich on May 18th 1878".
By W. Ellis. F.R.A.S.
Referees:- Mr Symons, Mr Scott, and Capt. Toynbee.

To be printed.

1. "On the results of Comparisons of Goldschmid's Aneroids".
By G. M. Whipple, F.R.A.S. (With a description and engraving of Lowesky's Aneroid in the Discussion)

2. "Observations on the Temperature of the Atlantic during the Month of March."
By P. F. Reinsch.

Mr Pigott's M.S. Journals.

It was announced that Mrs Pigott had presented to the Society the MS. Journal (1864-78) of her son the late G. G. G. F. Pigott.

It was resolved that a letter of thanks be written to Mrs Pigott.

Death of Mr Brooke.

It was resolved that the Council Secretary be requested to convey to the family of our late Vice-President, Mr Charles Brooke, the sincere

condolence of the Society on the death of one whose name has been for so many years identified with the progress of Meteorological Science, and who was one of the earliest Members of this Society.

The Council then adjourned.

Charles Greaves

June 18th 1879

Council Meeting held at 25 Great George Street.

Present. – C. Greaves, President, in the Chair.

H. S. Eaton, E. E. Dymond. R. J. Leeky,
H. Perigal, W. Ellis, F. A. R. Russell.
G. J. Symons, R. Field, R. Strachan,
J. W. Tripe, W. J. Harris, H. S. Tabor.
R. H. Scott, J. K. Laughton,

Minutes.

The Minutes of the last Meeting were read and confirmed.

Finance.

Balance. The Balance was reported to be

| | |
|---|---|
| At Bank | £ 417 - 13 - 8 |
| In hands of Assistant Secretary | 26 - 7 - 0 |
| | £ 444 - 0 - 8 |

Bills passed. The following were ordered to be paid:–

| | | |
|---|---|---|
| Malby & Sons – Lithography | | £ 23 - 1 - 6 |
| Williams & Strahan – Journal No. 30 | | £ 32 - 6 - 3 |
| Do | – Printing & Stationery | £ 5 - 4 - 3 |

Death. The death of Mr. S. C. Whitbread was announced.

It was resolved that a letter of condolence be sent to the family.

Correspondence.

Miss Dove. A letter was read from Miss Dove acknowledging the vote of condolence on the death of her father, the late Dr. Dove.

General Purposes Committee.

The following Report was read and adopted:–

"The Committee has to report that the stations at Bournemouth (South Bourne) and Eastbourne have been inspected and found

in a satisfactory condition.
"The Committee recommends that the salary of the youngest computer, T. C. Lewis, be increased to 8/- per week from the 1st of July.
The Committee has appointed Messrs Tabor, Symons, and Eaton, referees of the following Paper:- "Meteorological Observations made on the Peak of Teneriffe": by Dr W. Marcet. F.R.S.
(Signed) John W. Tripe.
Chairman.

Communications.
The reports of the Referees having been read it was resolved that:
1 Mr Ellis's paper. On a remarkable barometric disturbance at Greenwich on May 18th 1878. be printed.
2 Mr Meldrum's paper. On the Hurricane at Mauritius on March 20-21, 1879: be printed with the storm warnings but that the table of observations be omitted.
3. Dr Marcet's paper. "Meteorological Observations made on the Peak of Teneriffe" be printed unabridged.
Illustrations.
It was resolved that the necessary engravings be obtained for illustrating Mr Whipple's paper "On the relation between the height of the Barometer and the amount of cloud": and Mr Hagemann's paper "On the velocity of the Wind".
House Accommodation.
Dr Tripe having called attention to the advisability of appointing a Committee to report at the first Meeting of Council after the recess on either obtaining better and increased accommodation for the Society's Library &c. or skilled assistance to Mr Marriott; it resolved, on the motion of Mr Scott, seconded by Mr Dymond:—

"That a Committee consisting of five Members be appointed to report to the Council at the Meeting in October on the possibility of finding improved accommodation for the offices of the Society at a reasonable rent. That the Committee consist of

The President,
Mr. Eaton,
Mr. Field,
Mr. Lecky, and
Dr. Tripe.

The Council then adjourned.

Charles Guard[illegible]

July 23rd 1879.

Special Council Meeting held at 30 Great George Street.

Present C. Greaves, President, in the Chair.

H. Perigal, A. Brewin, R. Field,
G. J. Symons, E. E. Dymond, R. J. Lecky,
J. W. Tripe, W. Ellis, R. Strachan.

The Secretary read the following notice of Meeting:

# The Meteorological Society.

30 Great George Street,
Westminster, S.W.,
*July 18th*, 1879.

Sir,

In accordance with the terms of the Letter printed below, a Special Council Meeting will be held at 30 Great George Street, on Wednesday next, the 23rd instant, at Five o'clock precisely.

I am, Sir,
Your obedient Servant,
WILLIAM MARRIOTT,
*Assistant Secretary.*

*To* ..............................

[COPY OF LETTER.]

232 Richmond Road,
Hackney,
*July 18th*, 1879.

Dear Sir,

Please call a Special Meeting of Council on Wednesday next, July 23rd, at Five o'clock, to consider Report of Committee on House Accommodation, recommending that the adjoining room to that now occupied by the Society be taken at a rental not exceeding £50 a year for both rooms, and to determine thereon. Also, if carried, to order the necessary alterations, repairs and furniture for the same, to render it fit for occupation.

Faithfully yours,
JOHN W. TRIPE, M.D.,
*Council Secretary.*

*To* W. Marriott, Esq.,
*Assistant Secretary.*

The following Report of the House Accommodation Committee was read:-

"Your Committee has carefully considered the possibility of finding improved accommodation for the Offices of the Society at a reasonable rent and after due enquiry has come to the following conclusions:-

1. That it is not desirable to move without being able to acquire rooms fit for the permanent occupation of the Society, and as the excess of income over expenditure in 1880 will probably only be £60, and suitable rooms cannot be obtained for less than £80 per annum, your Committee do not recommend the Council to decide at present to remove to other premises.

2. That under these circumstances it is advisable to make an endeavour to acquire the small room adjoining the present room at a total rental not exceeding £50 per annum.

"Appended is a tabular statement of income and expenditure for the past 3 years and an estimate for 1880, on which the Committee has based the above conclusions.

(Signed) Charles Greaves,
Chairman.

On the motion of Mr. Brewin, seconded by Mr. Symons, it was resolved: "That the Report of the House Accommodation Committee be received, and that they be authorized to arrange with Messrs Beardmore and Barnes for the hire of the adjoining room for a term of not less than 18 months from the 24th of June last, at a rental not exceeding £33 per annum for the two rooms."

It was proposed by Mr. Brewin, seconded by Mr.

## Summary of Income & Expenditure 1876-1880

### Income

| Year | 1876 | 1877 | 1878 | 1879 | 1880 |
|---|---|---|---|---|---|
| ividends | 24-9-10 | 41-16-10 | 41-14-11 | 41-9-10 | 44-0-0 |
| eteorological Office | 47-10-0 | 118-6-8 | 134-13-1 | 134-4-0 | 115-0-0 |
| bscriptions | 255-6-0 | 279-10-3 | 316-18-0 | 360-0-0 | 370-0-0 |
| trance Fees | 51-6-0 | 33-3-0 | 37-1-0 | 73-0-0 | 30-0-0 |
| ife Compositions | 60-0-0 | 60-0-0 | 36-0-0 | 120-0-0 | 36-0-0 |
| le of Publications | 27-8-6 | 15-4-5 | 30-4-4 | 30-0-0 | 20-0-0 |
| Totals | 466-0-4 | 548-1-2 | 596-11-4 | 758-13-10 | 615-0-0 |

### Expenditure.

| Year | 1876 | 1877 | 1878 | 1879 | 1880 |
|---|---|---|---|---|---|
| ournal | 155-5-11 | 163-7-6 | 173-11-6 | 190-16-11 | 180-0-0 |
| rinting | 103-4-11 | 44-14-2 | 95-5-10 | 42-19-1 | 45-0-0 |
| alaries | 159-2-5 | 160-2-0 | 193-8-6 | 190-10-0 | 205-0-0 |
| ffice | 81-0-5 | 72-15-11 | 90-10-0 | 79-12-8 | 85-0-0 |
| tations | 6-5-0 | 12-15-0 | 76-1-3 | 45-0-0 | 40-0-0 |
| Totals | 504-18-8 | 453-14-7 | 628-17-1 | 548-18-8 | 555-0-0 |

for the hire of the adjoining room for a term of not less than 18 months from the 24th of June last, at a rental not exceeding £33 per annum for the two rooms."

It was proposed by Mr Brewin, seconded by Mr

Ellis, and resolved:- "That the Committee be authorized to arrange with the housekeeper as to his charges for cleaning the rooms, and to make him a donation not exceeding £5 for expenses of removal, and that the Committee be further authorized to spend a sum not exceeding £40 in cleaning, fitting and furnishing the rooms".

It was resolved that Mr Symons's name be added to the Committee, and that it in future consist of six Members.

The Council then adjourned.

Charles Greaves

October 15th 1879

Council Meeting held at 30 Great George Street

Present: C. Greaves, President, in the Chair,

| | | |
|---|---|---|
| H. S. Eaton. | R. H. Scott, | J. K. Laughton. |
| H. Toynbee. | A. Brewin. | R. J. Lecky. |
| H. Perigal. | E. E. Dymond, | F. A. R. Russell. |
| S. W. Silver. | W. Ellis. | R. Strachan. |
| G. J. Symons, | R. Field, | H. S. Tabor. |
| J. W. Tripe, | | |

Minutes.-

The Minutes of the Meeting of June 18th and July 23rd were read and confirmed.

Finance.

Balance.- The Balance was reported to be

| | |
|---|---|
| At Bank | £ 317 - 10 - 11 |
| In hands of Assistant Secretary | 2 - 8 - 6 |
| | £ 319 - 19 - 5 |

Bill passed.- Messrs Williams and Strahan's bill for printing No. 31 of the Quarterly Journal, £27 - 10 - 9, was ordered to be paid.

Fellows.

Nominations.- The names of the following candidates for admission into the Society were read and their certificates ordered to be suspended:-

Capt. C. K. Brooke.
Rev. E. Carr, M.A.
W. B. Fawcett.
H. Mellish.
G. B. Nichols
Earl of Northesk.
T. H. Walken.
C. L. Wragge.

Resignations.- The following resignations were read

and accepted:- Capt. M. Hall (elected in error), J. Hardwick, and Dr. J. Livy.

Deaths - The deaths of the following were announced:-

W. M. Burke, H. Negretti
J. J. Lake, W. W. Saunders.
J. J. Cohen de Lissa Dr. J. von Lamont. Hon. Mem.

It was resolved that a letter of condolence be sent to the family of Dr. Lamont.

Correspondence.

Mr. S. Whitbread, M.P. - A letter was read from Mr. S. Whitbread, M.P., acknowledging the vote of condolence on the occasion of the death of his Father, the late Mr. S. C. Whitbread.

It was resolved that a letter be send to Mr. Whitbread expressing the hope that the Observatory and the regular system of meteorological observations established by his father at Cardington might be still carried on, and that he would also continue the connection with the Society.

Royal Society. - A letter was read from Mr. W. White, stating that on the recommendation of the President and Officers of the Royal Society, the Lords of the Treasury had granted a copy of the Royal Society Catalogue of Scientific Papers, 8 vols, 4to, to the Library of the Meteorological Society.

It was resolved that a letter be sent to the Council of the Royal Society thanking them for this valuable donation.

Communications:

Received:- 1. "Notes on the Meteorology of Zanzibar"
By John Robb. M.D.
Referees:- Capt. Toynbee and Dr. Tripe.
2. "Dust Storm at Aden, July 16th 1878"
By Lieut. H. H. Russell.

Referees:- Mr Lecky and Mr Strachan.

Standing Umpire. Mr Ellis was appointed umpire in the case of disagreement between the referees of any Paper.

House Accommodation Committee.

The following Report was read:-

"In accordance with the resolution of the Council the Committee entered into communication with Messrs Beardmore and Barnes respecting the hire of the adjoining room and has taken possession on the terms set forth in the accompanying letter:-

"25 July 1879

"Dear Sir,

"For the purpose of carrying out the wishes of the Council of the Meteorological Society, we have entered into an agreement with Mr Grahame for renting the small Front Attic, in addition to the large Front Attic, now occupied by the Society, for a term of 18 months from the 24th of June last. Possession of the small attic to be given up at 3 months notice.

"We are therefore now willing to underlet such small attic to the Society for the annual Rent of £13, making a Total Rent of £33 per annum, for the sole use of small attic, and partial use, as at present, for the larger one. It being understood, that the Society shall surrender up the small attic, at three months notice, if called upon by us, to do so. and that a deduction at the rate of £13 per annum Rent be made from the date of such surrender

"Yours faithfully

"W. Marriott Esq. Beardmore & Barnes.

"The rooms have been whitewashed, papered,

painted and cleaned; ventilators have been fixed; and a new carpet, oilcloth, mats, fender, fire irons, lamp, and a dwarf cupboard have been procured; the total sum expended being £41.4.6.

"Additional chairs and an umbrella stand are still needed, for which a further sum is required.

"The Committee has given a gratuity of £4 to the Housekeeper for expenses of removal and general assistance.

(Signed) "Henry Storks Eaton,
"Chairman."

It was resolved that the Report ~~of the Com~~ be received, and the action of the Committee approved; and also that a further sum not exceeding £10 be allowed to complete the furnishing.

General Purposes Committee.

The following Report was read:–

"A letter has been received from the Meteorological Office stating "that it is not proposed to make any change in the allowances to the Society this year, for the observations and valuable assistance rendered by it, and for the inspection of stations."

"As it is estimated that there will be a balance in hand of about £200 on Dec. 31st, the Committee recommends that the sum of £100 be invested in the New 3 Per Cents.

"Appended is the Report of the Assistant Secretary on the Inspection of the Stations during the year.

"A letter has been received from Mr. A. O. Walker stating that the 9 a.m. and 9 p.m.

observations at Chester could not be continued after June 30th

"The Committee has accepted Mr. Colborne's offer to observe at St. Leonards, and proposes to discontinue to publish the observations at Eastbourne after December 31st.

(Signed) "Charles Greaves
"Chairman"

It was resolved that the Report be received, and that the sum of £100 be invested in the New 3 Per Cents.

Report on Inspection. 1879.

"The following stations have been inspected during the year:-

| | | |
|---|---|---|
| Audley End | Dartmoor | Mansfield |
| Bournemouth | Downside | Scaleby |
| Buxton | Eastbourne | Scarborough |
| Cheltenham | Farley | Shrewsbury. |
| Croydon | Gainford | |
| Dalston | Lowestoft | |

"In most cases the instruments were found to be in a satisfactory condition and the observations made with great care. The wet bulb thermometer did not appear to have been properly attended to at all the stations, the muslin and conducting thread having been allowed to remain on so long that they were evidently not in good working order. Observers cannot be urged too strongly to frequently change the muslin and conducting thread (these being first boiled to remove all starch &c), to provide a copious supply of rain water, and to see that the wet bulb thermometer is giving correct indications.

"It is desirable that the thermometer stands be

painted once a year.

"Some minimum thermometers have the end of the stem completely covered over with a piece of wood so that it is impossible to see if any of the spirit has evaporated to the top of the tube. Instrument makers would do good service by leaving the end of the tube entirely uncovered.

"At two of the stations visited – Harley and Scarborough – marine barometers are in use; these are so sluggish, the tube being very much contracted, that they cannot follow the changes of atmospheric pressure with such rapidity as is necessary for correct results. This class of barometer is not suitable for land stations, and should be confined exclusively for observations at sea.

"The barometer at Audley End has appeared to read too low for some time past; on inspection it was found that there was air in the tube and that the instrument read about ·030 inch too low.

"Owing to the contemplated erection of buildings at Downside College, the instruments were moved in April last about 80 feet SSW of their previous position.

(Signed) "William Marriott."

It was resolved that the Assistant Secretary's Report be received, and that a circular be issued to the leading opticians calling attention to the undesirability of the practice of so mounting the spirit minimum thermometers that the observers cannot see whether any spirit has collected at the upper end.

Climatological Stations.–

On the motion of Dr Tripe, it was resolved that the advisability of having third class stations, at which max. min. and rainfall observations

be taken at 9 a.m. be referred to the General Purposes Committee for consideration and report.

Deductions from Observations.

On the motion of Mr. Eaton it was resolved that the original deductions from the observations recorded at the Society's stations be arranged to illustrate the comparative climate of the country.

Science Gossip Meeting.

Dr. Tripe called attention to the propriety of having a Science Gossip Meeting once in every Session in lieu of an Ordinary Meeting. This proposal was approved of in a general way, but the details were left for further consideration.

The Council then adjourned.

Charles Greaves

November 19th 1879

Council Meeting held at 25 Great George Street, S.W.

Present. – C. Greaves, President, in the Chair.

H. S. Eaton, R. H. Scott, R. J. Lecky,
H. Toynbee, A. Brewin, F. A. R. Russell,
H. Perigal, E. E. Dymond, R. Strachan,
G. J. Symons, W. Ellis, H. S. Tabor,
J. W. Tripe, R. Field,

Minutes. –
The Minutes of the last Meeting were read and confirmed.

Finance. –
Balance. – The Balance was reported to be

| | |
|---|---|
| At Bank | £ 182 – 8 – 1 |
| In hands of Assistant Secretary | 4 – 17 – 0 |
| | £ 187 – 5 – 1 |

Stock. – On Oct. 21st the sum of £100 was invested in the purchase of £103-15-3 New 3 Per Cents.

Death. – The death was announced of Mr. H. A. Kettle.

Fellow reinstated. – Mr. T. H. Morgan, a Life Fellow, whose name was removed from the List in May last, as his address had not been known for more than 5 years, having recently returned to England and communicated with the Society, was replaced on the List.

General Purposes Committee. –
The following Report was read:–
The Committee has carefully considered the question of the establishment of a number of Stations for Climatological purposes and recommends:–
1. That such a system be organized to commence on January 1st 1880.

2. That the number of stations be unlimited.
3. That the following be the instruments required:-
Maximum Thermometer divided on the stem and verified.
Minimum " " " "
Dry Bulb " " " "
Wet " " " " "
Rain Gauge
4. That the thermometers be mounted in a Stevenson Stand and read once daily at 9 a.m.
5. That the accompanying form be used for recording the observations.
6. That the monthly results be printed in the Journal in a Table similar to that appended – the three months if possible to come on one page.
7. That the Stations be inspected.
The time employed in reducing the observations will be less than 12 hours per annum for each station.
The Committee has appointed Mr. Eaton and Mr. Scott, referees of the following paper:-
"Note on a curious fracture of a Solar Radiation Thermometer". By G. M. Whipple, B.Sc., F.R.A.S.
(Signed) " Charles Greaves
" Chairman"

The above Report was adopted with the exception of the following alterations or additions:-
Recommendation 2. This clause was struck out.
" 3. The diameter of the Rain Gauge to be not less than 5 ins.
" 5. Instructions to be printed on the forms.
" 7. The question of the inspection of the stations was postponed.

Communications.-
The reports of the Referees having been read, it was resolved that
1. Dr. Robb's paper "On the Meteorology of Zanzibar"

be read and printed.

2 Lieut Russell's paper "On the Sand Storm of July 16th 1878 at Aden, be read and printed in abstract.

3. Mr Whipple's paper "Note on a curious fracture of a Solar Radiation Thermometer" be read and printed.

Received –

"On Diurnal Range of Atmospheric Pressure"
By Richard Strachan, F.M.S.
Referees: – Mr Greaves and Mr Symons.

It was decided that if any other papers come in for the next Meeting they be referred to the above referees.

List of Donations.

On the motion of Mr Eaton, it was resolved that in future the List of Donations be printed only once a year.

Council Meetings.

On the motion of Mr Dymond, it was resolved that the Standing order requiring that the Meeting of the Council when there is no Ordinary Meeting shall commence at 5 p.m, be rescinded.

The Council then adjourned.

Charles Greaves.

Climatological Observations at 9 a.m, made at ______ 188–

| Date | Thermometers | | | | Amount of Cloud | Rain | Remarks |
|---|---|---|---|---|---|---|---|
| | Max | Min | Dry | Wet | | | |
| 1<br>2<br>3<br>&c | | | | | | | |

Returns from the Climatological Stations for the three months ending March 1880

| Stations | January | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Temperature | | | | | | | At 9 A.M. | | | Rain | |
| | Extremes | | | Means | | | | | | | | |
| | Max | Min | Range | Max | Min | Range | Mean | Temperature | Humidity | Amount of Cloud | Amount | No of Days |

Climatological Observations at 9 a.m, made at ______ 188–

December 17th 1879.

Council Meeting held at 25 Great George Street.

Present:- C. Greaves. President in the Chair.

| | | |
|---|---|---|
| H. S. Eaton, | A. Brewin, | J. K. Laughton |
| H. Toynbee, | E. E. Dymond | R. J. Lecky |
| H. Perigal | W. Ellis. | R. Strachan |
| G. J. Symons | R. Field | H. S. Tabor. |
| R. H. Scott | W. J. Harris | |

Minutes.-

The Minutes of the last Meeting were read and confirmed.

Finance.-

Balance.- The Balance was reported to be

| | |
|---|---|
| At Bank | £227 - 8 - 11 |
| In hands of Assistant Secretary | 3 - 15 - 3 |
| | £ 231 - 4 - 2 |

Bills passed.- The following bills were ordered to be paid:-

| | |
|---|---|
| Williams & Strahan - Printing Journal No. 32. | £37 - 9 - 3 |
| Eyre & Spottiswoode - Quarterly Report | 7 - 12 - 0 |
| J. Jennings - Refreshments | 9 - 1 - 6 |
| Beardmore & Barnes - Rent | 26 - 10 - 0 |

Resignations.-

The following resignations were read and accepted:- T. H. G. Berrey, J. P. Harrison, and A. C. Murray.

Deaths.-

The deaths were announced of the Earl of Durham and Mr. W. H. Harrison.

Communications.-

Accepted.- On the recommendation of the Referees the following Papers were accepted for reading and printing:-

1. "Diurnal Range of Atmospheric Pressure"
By R. Strachan, F.M.S.

2. "New Form of Hygrometer".
By G. Dines, F.M.S.
3. "On Typhoons in China, 1877 and 1878".
By Lieut. A. Carpenter, R.N.

Received:-

1. "On the Connection between Meteorological Phenomena and the Position of the Earth's Perihelion".
By B. G. Jenkins, F.R.A.S.
Referees:- Mr. Laughton and Mr. Whipple.
2. "Comparison of Thermometric Observations made on board the SS. "Algeria" by Capt. W. Watson, during September to December".
Compiled at the Meteorological Office.
Referees:- Mr. Laughton and Mr. Tabor.

On the motion of Mr. Brewin the following rider to the resolution passed on April 16th, 1879, (page 276) was adopted:- "Provided that no paper be put down for reading at any Meeting of the Society without the previous approval of the Council or of the General Purposes Committee".

Reading of Referees Reports.-

On the motion of Mr. Scott it was resolved; "That when the report of the referees on any paper be read, the author of the paper, if present, should, for the time, withdraw".

Inspection of Climatological Stations.-

On the motion of Mr. Brewin, it was resolved:- "That all stations of the 3rd order be inspected as soon as practicable, the time and mode of such inspection being left to the General Purposes Committee.

General Purposes Committee

The following Report was read and adopted:-
"The Committee has appointed Mr. Laughton

and Capt. Toynbee, referees of the following paper:-
"On Typhoons in China, 1877 and 1878"
By Lieut. A. Carpenter, R.N.
"The Committee has given permission to Mr. Scott to exhibit and describe a new Sunshine Recorder at the Meeting on the 17th instant.
"About 34 offers have been received from Fellows willing to organize Climatological Stations by January 1st, 1880. The Committee would be glad if the Members of Council could procure observers for the districts at present unrepresented.
"The Committee has to report that the stations at Audley End and Gainford will have to be discontinued, the former on account of erroneous readings and the latter through the ill-health of the observer
(Signed) "Charles Greaves,
"Chairman."

Observations at St. Leonard's.

A letter was read from Mr. Colborne stating that he had been appointed by the Town Council, observer at Hastings in the place of Mr. Murray, and that he wished to know whether he could send his observations to the Meteorological Office as well as to the Society.

It was decided that Mr. Colborne had better send his observations to the Meteorological Office instead of to the Society.

Graduation and Verification of Thermometers.

The following Memorandum by the Assistant Secretary was read and referred to the General Purposes Committee:-
"During the intense frost of last winter the temperature at one or two of the stations fell below the scale of the Dry and Wet Bulb Thermometers, and consequently the readings were lost and had to

be filled in approximately. As there is a great probability that the same thing may have occurred during the present month, it seems very desirable to recommend that the instrument makers should be informed of the necessity of graduating the Dry and Wet Bulb Thermometers to at least 0°, and the Minimum Thermometers to −20° or −30°.

"Another important point to which the consideration of the Council is invited is the fact that the Dry and Wet Bulb Thermometers under ordinary circumstances are not verified at Kew below 32°. As a very small amount in the difference between the readings of the Dry and Wet Bulbs makes a considerable alteration in the calculated Dew Point, it is very essential that the Thermometers should be verified much lower than 32°.

"I therefore beg to submit that the attention of the Kew Committee should be called to this matter, and that they be solicited to have the Dry and Wet Bulb Thermometers verified to 0°, and the Minimum Thermometers, if possible, to 10° below zero.

(Signed) "William Marriott."

Report on the Staff in the Office.

The following report by the Assistant Secretary was read and referred to the General Purposes Committee:–

"At the request of the Council Secretary I have to report that the youths engaged in the Office are E. J. Horstman and T. C. Lewis. The former, who is nearly 16 years of age, has been with me two years and receives 10/- per week; the latter, who is 15 years of age, has been with me thirteen months and receives 8/- per week. Horstman understands the details of the work of the Office and makes fair progress with the returns. Lewis keeps to the work and tries to do his

best; but is not so reliable as could be wished.
(Signed) "William Marriott"

Climate of the Country.

On the motion of Mr. Eaton, it was resolved:-
"That a circular be sent to observers asking for monthly summaries of meteorological returns for the decade of years 1871-80." or parts thereof — a.

Officers and Council for 1880.

The following List of Officers and Council for the ensuing year was adopted:-

# BALLOTING LIST.

**WEDNESDAY EVENING, JANUARY 21, 1880.**

*TO BE PRESENTED IN PERSON ONLY.*

| Attendances at Meetings: Council. Nine Meetings. | Ordinary. Seven Meetings. | |
|---|---|---|
| | | *PRESIDENT.—One name to be returned.* |
| 9 | 7 | *George James Symons, F.R.S.* |
| | | *VICE-PRESIDENTS.—Four names to be returned.* |
| 9 | 7 | *Edward Ernest Dymond* |
| 9 | 7 | *Charles Greaves, M.Inst. C.E., F.G.S.* |
| 3 | 3 | Rev. William Clement Ley, M.A. |
| 7 | 6 | Capt. Henry Toynbee, F.R.A.S. |
| | | *TREASURER.—One name to be returned.* |
| 8 | 7 | Henry Perigal, F.R.A.S. |
| | | *TRUSTEES.—Two names to be returned.* |
| 0 | 0 | Sir Antonio Brady, F.G.S. |
| 1 | 0 | Stephen William Silver, F.R.G.S. |
| | | *SECRETARIES.—Two names to be returned.* |
| 7 | 6 | *Robert Henry Scott, M.A., F.R.S., F.G.S.* |
| 8 | 5 | John William Tripe, M.D., L.R.C.P.E., V.P. Soc. Analysts |
| | | *FOREIGN SECRETARY.—One name to be returned.* |
| 6 | 5 | *John Knox Laughton, M.A., F.R.A.S., F.R.G.S.* |
| | | *COUNCIL.—Twelve names to be returned.* |
| 7 | 4 | Arthur Brewin, F.R.A.S. |
| 9 | 7 | William Ellis, F.R.A.S. |
| 9 | 6 | Rogers Field, B.A., M. Inst. C.E. |
| — | — | *Frederic Gaster* |
| — | — | *Joseph Henry Gilbert, Ph.D., F.R.S., F.C.S.* |
| 3 | 3 | William John Harris, M.R.C.S. |
| — | — | *Baldwin Latham, M.Inst.C.E., F.G.S.* |
| 9 | 7 | Robert John Lecky, F.R.A.S. |
| 5 | 4 | Hon. Francis Albert Rollo Russell |
| 8 | 7 | Richard Strachan |
| 7 | 6 | Henry Samuel Tabor |
| — | — | *George Mathews Whipple, B.Sc., F.R.A.S.* |

*N.B.—The names of newly proposed Officers and Members of Council are printed in italics.*

Special Meeting

It was resolved that a Special Meeting of Council be held on Tuesday, January 6th, for the consideration of the Report of the Council and other Business.

The Council then adjourned.

Charles Greaves

## January 6th 1880

Special Council Meeting held at 30 Great George Street.

Present:- C. Greaves, President, in the Chair.

H. S. Eaton, J. W. Tripe, R. Field
H. Toynbee, R. H. Scott, R. J. Lecky
H. Perigal, A. Brewin, R. Strachan
A. Brady, E. E. Dymond, H. S. Tabor
G. J. Symons, W. Ellis

Finance.-

Balance Sheet.- The Balance Sheet for the year 1879, as passed by the Auditors, showing a balance in hand of £150-8-0 was laid on the Table.

Estimate for 1880.- The accompanying Estimate of Revenue and Expenditure for the current year was read and approved (see next page).

Circulars to Medical Officers of Health.

On the motion of Dr Tripe, it was resolved that all the circulars remaining on hand be sent to the new Medical Officers of Health.

Fellows.-

Resignations.- The following resignations were read and accepted:- R. W. T. Morris, D. Robie, and W. S. Rogers.

Arrears.- It was resolved that the special circular be sent to those Fellows who are two years or more in arrear.

Staff in the Office.-

Dr Tripe reported that the General Purposes Committee recommended (1) that Horstman's salary be increased to 12/6 per week; (2) that Lewis's salary remain as it is; and (3) that another lad be engaged at 8/- per week.

This report was adopted.

## Estimate of Revenue and Expenditure for the year 1880

### Revenue.

| | £ | s | d | £ | s | d |
|---|---|---|---|---|---|---|
| Balance from 1879 | | | | 150 | 8 | 0 |
| Dividends – M.S.&L.R. | 35 | 5 | 0 | | | |
| " New 3 Per Cents | 9 | 5 | 0 | 44 | 10 | 0 |
| Meteorological Office:– | | | | | | |
| Monthly Returns | 100 | 0 | 0 | | | |
| Annual " | 2 | 10 | 0 | | | |
| Weekly " | 7 | 0 | 0 | | | |
| Inspection | 25 | 0 | 0 | 134 | 10 | 0 |
| Subscriptions – 1880 | 290 | 0 | 0 | | | |
| " Arrears | 66 | 0 | 0 | | | |
| New Fellows | 40 | 0 | 0 | 396 | 0 | 0 |
| Mr. Mawley – Publication of observations | | | | 2 | 2 | 0 |
| Sale of Publications | | | | 20 | 0 | 0 |
| | | | | 747 | 10 | 0 |

### Expenditure

| | £ | s | d | £ | s | d |
|---|---|---|---|---|---|---|
| Journal.– | | | | | | |
| Printing & Illustrations | 150 | 0 | 0 | | | |
| Authors' copies | 12 | 0 | 0 | | | |
| Registrar General's Reports | 7 | 12 | 0 | 169 | 12 | 0 |
| Printing &c. | | | | | | |
| General Printing | 15 | 0 | 0 | | | |
| List of Fellows | 8 | 0 | 0 | | | |
| Forms &c | 12 | 0 | 0 | | | |
| Stationery | 15 | 0 | 0 | | | |
| Books & Bookbinding | 20 | 0 | 0 | 70 | 0 | 0 |
| Salaries.– | | | | | | |
| Assistant Secretary | 145 | 0 | 0 | | | |
| Computers | 75 | 0 | 0 | 220 | 0 | 0 |
| Office &c | | | | | | |
| Rent & Housekeeper | 49 | 0 | 0 | | | |
| Furniture, Coals &c | 5 | 0 | 0 | | | |
| Postage | 35 | 0 | 0 | | | |
| Petty Expenses | 5 | 0 | 0 | | | |
| Refreshments | 11 | 0 | 0 | 105 | 0 | 0 |
| Observations.– | | | | | | |
| Inspection of Stations | 60 | 0 | 0 | | | |
| Dartmoor | 2 | 2 | 0 | 62 | 2 | 0 |
| | | | | 626 | 14 | 0 |

Cobham Journals

A letter was read from Miss E. A. Ormerod stating that she had been engaged for a long while in abstracting and summarizing Miss

Molesworth's Journals and that the matter would be ready for publication in the course of the next few months, and she requested permission to dedicate the work to the President and Fellows of the Society.
It was resolved that Miss Ormerod's request be acceded to.

<u>Report of Council</u>
The Report of the Council was approved and adopted the verbal alterations being left to the Editing Committee.

The Council then adjourned.

[signature]

# January 21st 1880.

Council Meeting held at 25 Great George Street S.W.

Present:- C. Greaves, President, in the chair.

H. S. Eaton. J. W. Tripe J. K. Laughton
H. Toynbee. R. H. Scott R. J. Lecky
H. Perigal A. Brewin R. Strachan
S. W. Silver, E. E. Dymond H. S. Tabor
G. J. Symons, W. Ellis

Minutes.-

The Minutes of the Meetings on December 17th and January 6th were read and confirmed.

Finance-

Balance- The Balance was reported to be

| | |
|---|---|
| At Bank | £ 373 - 9 - 8 |
| In hands of ~~Assistant Secretary~~ | 6 - 14 - 7 |
| | £ 380 - 4 - 3 |

It was decided that in future the Bankers Pass Book be laid on the Table.

Fellows.

Resignations. The following resignations were read and accepted:- Lord Hampton, and Dr. J. W. Walker.

Fellows in arrear.

It was resolved that the following names be removed from the List of Fellows:-

J. Arnold W. Kennedy
H. G. Bolam G. Madders
W. F. Cooper T. T. Pyle
H. H. Davies T. H. Quelch
G. A. Hutchins W. Radford.

Attention having been called to the fact that Mr. G. Madders was holding himself out as a Fellow of the Society when he had not paid

his Entrance Fee and Subscription, it was resolved that a letter be sent to Mr. Madders requesting him not to state himself to be such, otherwise the Council would have to take some further steps in the matter.

Nominations - The names of the following candidates for admission into the Society were read and their certificates ordered to be suspended, viz:-

J. S. Cameron, M.D., B.Sc.,
A. Collenette,
S. Forrest.
H. S. Marten
W. P. Propert, LL.D.
S. Rostron.
W. P. Swainson.

Engagement of additional computer.

The Assistant Secretary reported that Albert Thomas Budden, a youth 16 years of age, and by the President, had been engaged as an additional computer at 8/- per week.

General Purposes Committee.

The following Report was read and adopted:-

"The Committee has to report that a letter having been received from the Meteorological Office inquiring whether the Society's observers at Kelstern, Hillington, Llandudno, and Churchstoke would be willing to receive on loan, and attend to, a Sunshine Recorder, these gentlemen have been communicated with and have expressed their readiness to take charge of the instrument.

"The Committee has considered the Memorandum of the Assistant Secretary on the Graduation and Verification of Thermometers and recommends that a letter be sent to the

Kew Committee calling attention to the desirability of verifying Thermometers to a much lower point than 32°.

(Signed) "Charles Greaves
"Chairman"

Vote of Thanks to the President.

On the motion of Dr. Tripe, the thanks of the Council were unanimously voted to the President for the ability and courtesy with which he had presided over their Meetings during his term of office.

The Council then adjourned

G J Symons

February 18th 1880.

Council Meeting held at 25 Great George Street, S.W.

Present:- G. J. Symons, President, in the Chair,

| | | |
|---|---|---|
| E. E. Dymond, | A. Brewin, | B. Latham, |
| H. Perigal, | W. Ellis, | F. A. R. Russell, |
| R. H. Scott, | R. Field, | R. Strachan, |
| J. W. Tripe, | F. Gaster, | H. S. Tabor, |
| J. K. Laughton, | J. H. Gilbert, | G. M. Whipple. |

Minutes.-

The Minutes of the last Meeting were read and confirmed.

Finance.

Balance.- The balance was reported to be

| | |
|---|---|
| At Bank | £ 422 - 9 - 8 |
| In hands of ~~Assistant Secretary~~ | 5 - 10 - 4 |
| Do - Petty Cash | 2 - 10 - 0 |
| | £ 430 - 10 - 0 |

Correspondence-

Verification of Thermometers.- The following letter from Mr. Whipple, Superintendent of the Kew Observatory was read:-

"I am directed by the Kew Committee to state that having considered the suggestion of the Council of the Meteorological Society as to the desirability of having Dry, Wet and Minimum Thermometers verified down to zero, they are of opinion that this important question should receive their best attention and have accordingly instructed me to institute a series of experiments with a view of ascertaining the most convenient method of verifying thermometers at a temperature of zero Fahrenheit.

"It has for some time been the custom of the Observatory to verify Minimum Thermometers down to

12° Faht. charging a fee of 1/6 for the certificate. We shall be happy in future to verify Dry and Wet Thermometers throughout the same extended range of scale at the same rate when desired."

On the motion of Mr. Tabor it was resolved that a circular be sent to the opticians informing them that the Kew Committee will verify Dry, Wet and Minimum thermometers down to 12° for a fee of 1/6 each.

Mr. G. Madders. A letter was read from Mr. G. Madders stating that he is not, and does not intend, using the name of the Society.

General Purposes Committee.

The following Report was read:–

1. The Committee has to report that there being only two short papers in hand for reading at the Meeting on the 18th instant, Mr. Scott has been requested to prepare a paper on the "Reports of Wind Force and Velocity during the Tay Bridge Storm, December 28th 1879", and the Assistant Secretary a paper on the "Frost of December 1879, over the British Isles."

2. The Committee recommends that each Member of Council be supplied with a separate copy of the Report of the Meteorology of England prepared by the Assistant Secretary; and that a title page be printed with the last number for each year.

3. The Committee recommends that the amount for which the Society's Library is insured be increased from £250 to £500.

4. The Assistant Secretary having asked that some rule should be made as to the drawing of cheques for Petty Cash, the Committee recommends that the Assistant Secretary have a sum of £15 in hand to go on with, and that all disbursements be made up at the next Council Meeting.

(Signed) Charles Greaves
Chairman

Paragraphs 1 to 3 were adopted.
Paragraph 4. It was resolved that a cheque be drawn for £12-10-0, and in future for such amount as the Council may direct.
Ordinary Meeting in March.
It was resolved that only two or three short papers be read at the March Meeting, and that the discussion be closed at 8 pm. to allow of the exhibition of instruments &c. The arrangements for the Meeting were left in the hands of the General Purposes Committee.
Appointment of Committees.
The Committees were constituted as follows:-
General Purposes Committee - 7 Members.
The President,
Three Secretaries,
Mr. Ellis,
Mr. Latham
Mr. Tabor.
Editing and Publication Committee - 3 Members.
Mr. Laughton,
Mr. Scott,
Mr. Whipple.
Balloon Observations.
Mr. Scott stated that he had had an interview with ~~Mr.~~ Capt. Templar upon the subject, and would report again subsequently.
Royal Artillery Institution.
Mr. Gaster called attention to the name of the Royal Artillery Institution being retained on the List of Fellows, and said that he would move a resolution on the subject at the next Meeting.
Climatological Forms.
Mr. Dymond called attention to the desirability

of having the headings of the Climatological forms altered.
It was resolved that the matter be referred to the General Purposes Committee for consideration and report.

The Council then adjourned.

G J Symons

March 17th 1880

Council Meeting held at 25 Great George Street. S.W.

Present:- G. J. Symons, President, in the Chair.

E.C. Dymond. W. Ellis. R. J. Lecky
R. H. Scott. R. Field. R. Strachan
J. W. Tripe F. Gaster H. S. Tabor
J. K. Laughton J. H. Gilbert G. M. Whipple.
H. Pergal B. Latham.

Minutes.-
The Minutes of the last Meeting were read and confirmed.

Finance.-
Balance.- The balance was reported to be

| | |
|---|---|
| At Bank | £ 491 - 19 - 8 |
| In hands of Assistant Secretary | 8 - 0 - 7 |
| Do " Petty Cash | 1 - 1 - 5 |
| | £ 501 - 1 - 8 |

It was resolved that a cheque for £13 - 18 - 7 be drawn for Petty Cash.

Bill passed.- Messrs Williams & Strahan's bill of £6-16-0 for printing the List of Fellows was ordered to be paid.

Deaths.- The deaths were announced of Mr. H. M. E. Crofton and Mr. E. C. Morrell.

Resignation. The resignation of Mr. J. Delaney was read and accepted.

General Purposes Committee.
The following Report was read:-
1." The Committee has placed the following papers on the Agenda for the Ordinary Meeting on the 17th instant, viz:-

1 "Thermometric Observations on board the S.S. 'Algeria'" By Capt. W. Watson, F.M.S.

2."On the Greenwich Sunshine Records, 1876-80." By W. Ellis. F.R.A.S.

3. "On the Rate at which Barometric changes traverse the British Isles": By G. M. Whipple, B.Sc., F.R.A.S.
and has sent a circular to the opticians inviting them to exhibit instruments on that occasion.

2. "Dr Tripe and Mr Laughton have been appointed referees of Mr C. N. Pearson's paper "On the Meteorology of Mozufferpore, 1879". Mr Whipple's paper was also referred to the same gentlemen.

3. "The Committee has ordered Mr Marriott's paper "On the Frost of December 1879" to be set up in type, and recommends that the maps also be printed.

4. "An application having been received from Mr W. H. Tooker asking for an increase in the amount paid him for taking the observations on Dartmoor, the committee recommends that the amount be increased from £2-2-0 to £3-3-0 per annum.

5. "The Committee has considered the question of altering the headings of the Climatological forms, and recommends that the columns for Dry and Wet come before those for Max. and Min., and that the alterations take place on January 1st 1881; also that the quarterly summaries be arranged as follows:-

| Station | January | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Means at 9 a.m. | | Temperature | | | | | | | Mean amount of cloud at 9 a.m. | Rain | |
| | | | Means | | | | Extremes in month | | | | | |
| | Temperature | Humidity | Min | Max | Range | Mean | Min | Max | Range | | Amount | No. of Days |
| | | | | | | | | | | | | |

6. "The Committee recommends that a copy of Keith Johnston's "Royal Atlas of Modern Geography" be purchased for the Library; also that

an exchange of publications be effected with the editors of "Ciel et Terre", a fortnightly astronomical and meteorological periodical.

(Signed) G. J. Symons, Chairman.

Paragraph 5. It was resolved that the alteration in the heading of the Climatological forms take place on April 1st next: with this exception the above report was adopted.

X It was resolved that 500 copies of Mr Marriott's paper "On the Frost of December 1879" be printed forthwith for distribution among the Fellows.

Communications.

Accepted. – On the recommendation of the referees the following Papers were accepted for reading and printing:–

1. "On the Rate at which Barometric changes traverse the British Isles"

By G. M. Whipple, B.Sc., F.R.A.S.

2. "On the Meteorology of Mozufferpore, 1879."

By C. H. Pearson, F.M.S.

Received. – The following papers had been received:–

1. "Proposed theory of the progressive movement of barometric depressions or storms".

By R. Tennent, F.R.S.E.

Referee: Mr Ellis.

2. "Observations météorologiques faites à Braila, Roumanie, pendant l'année 1879."

Par Dr S. C. Hepites.

The Assistant Secretary was requested to compile an epitome of this paper.

3. "On a new form of Six's self registering Thermometer."

By J. W. Zambra, F.M.S.

Referees: Mr Strachan and Mr Whipple

Royal Artillery Institution. –

On the motion of Mr Gaster it was resolved:– "That the Secretary be instructed to communicate

with the Secretary of the Royal Artillery Institution informing him that at the end of his term of office the Life Subscription paid to the Meteorological Society in the name of the Secretary of the Institution will be considered to have lapsed".

Registrar General for Ireland.

Mr. Scott having stated that the Registrar General for Ireland was desirous of publishing the results of observations from Limavady, one of the Society's stations, in his Returns. It was resolved that a copy of the results for Limavady be furnished to the Registrar General for Ireland, and that he be requested to supply copies of his Returns to the Society.

The Council then adjourned.

G J Symons

April 21st 1880

Council Meeting held at 25 Great George Street, S.W.

Present:- G. J. Symons, President; in the chair.

| | | |
|---|---|---|
| E. E. Dymond, | J. W. Tripe, | J. H. Gilbert, |
| C. Greaves, | J. K. Laughton, | F. A. R. Russell, |
| H. Perigal, | W. Ellis, | R. Strachan |
| A. Brady, | R. Field, | H. S. Tabor, |
| R. H. Scott, | F. Gaster, | G. M. Whipple. |

Minutes.-
The Minutes of the last Meeting were read and confirmed.

Finance.-
Balance. The Balance was reported to be

| | |
|---|---|
| At Bank | £ 505 - 0 - 1 |
| In hands of Assistant Secretary | 9 - 9 - 11 |
| | £ 514 - 10 - 0 |

The Petty Cash Account having been exceeded by £2 - 14 - 0, it was resolved that a cheque be drawn for £17 - 14 - 0 for Petty Cash.

Bills passed - The following Bills were ordered to be paid:-

| | | |
|---|---|---|
| Williams & Strahan - | Printing Journal No. 33 | £ 36 - 2 - 6 |
| Do | Printing Forms | £ 11 - 10 - 6 |
| Do | General Printing & Stationery | £ 10 - 19 - 3 |

Resignation - The resignation of Mr J. L. Ashbury was read and accepted subject to payment of the subscription for 1880.

Correspondence.

Royal Artillery Institution - The following letter from the Secretary was read:-

"March 20th 1880.

"Dear Sir,

"I beg to acknowledge the receipt of your letter of yesterday's date in which you inform me

that the Council have resolved that the Life subscription paid to the Meteorological Society will be considered to have lapsed at the end of the term of office of the present Secretary of the Royal Artillery Institution. Allow me to point out to you that the sum of £10 was paid to the Meteorological Society in 1867 in consideration that the Secretary of the Royal Artillery Institution for the time being should be entitled to the rights and privileges of a Life Fellow, and that this arrangement cannot lapse so long as there be a Secretary of the Royal Artillery Institution except by the consent of the said Institution, which consent will not be given.

"Your Council in passing the resolution you convey to me cannot have been aware that this contract existed.

"Yours faithfully,
"J. M. Taylor, Lt Colonel.
"Sec. R. A. Inst."

It was resolved that the Secretary of the Royal Artillery Institution be asked to furnish a copy of the contract.

Society of Arts. A letter was read from the Secretary asking the President to suggest the name of any person that might be thought suitable for the Society of Arts Albert Medal.

It was resolved to suggest the name of Dr. Buys Ballot, of Utrecht.

Miss Ormerod. A letter was read from Miss E. A. Ormerod stating that she had completed the discussion of the "Cobham Journals" and that she had now much pleasure in presenting to the Society 500 copies of the work, one copy for each Fellow.

The President was requested to convey to Miss Ormerod the best thanks of the Council for this valuable donation to the Fellows of the Society.

It was resolved that the books be sent out by post, together with a circular stating how they came into the hands of the Society.

General Purposes Committee.

The following Report was read and adopted:-

"The Assistant Secretary having reported that Lewis has done his work well since January, the Committee recommends that his salary be increased by 2/- per week from the beginning of April.

"A letter has been received from the Meteorological Office requesting that Weekly Returns might be furnished from Churchstoke, Hillington and Llandudno. The Committee recommends that these be supplied until further notice.

"The Meteorological Office has also agreed to take the returns from Sealeby in place of those from Audley End.

"Two Papers having been received the Committee has referred them as follows:-

1. "Ozone in Nature, its relations, sources and influences &c". By J. Mulvany, M.D. R.N.
Referees:- Dr. Tripe and Mr. Tabor.

2. "Results of Meteorological Observations made at Stanley, Falkland Islands, 1875-77". By William Marriott.
Referees:- Mr. Laughton and Mr. Strachan.

"The Committee recommends that a list of all the instruments exhibited at the last Meeting, and also a description of new instruments or modifications of old ones then exhibited, be printed in the Quarterly Journal

(Signed) John W. Tripe
Chairman"

Communications.

Accepted. – On the recommendation of the Referees the following Papers were accepted for reading and printing:–

1. "A New Form of Six's Self-registering Thermometer". By J. W. Zambra, F.M.S. (Print in abstract with engraving)

2. "Ozone in Nature its relations, sources and influences &c". By J. Mulvany, M.D. R.H. (Print subject to revision by Editing Com.)

3. "Results of Meteorological Observations made at Stanley, Falkland Islands, 1875–77". By William Marriott, F.M.S.

Declined. – The report of the Referee being unfavourable the following Paper was declined:–

"Proposed Theory of the Progressive Movement of Barometric Depressions or Storms". By R. Tennent, F.R.S.E.

Referred. – The following Papers were referred as follows:–

1. "Variations in the Barometric Weight of the lower atmospheric strata in India". By Prof. E. Douglas Archibald, M.A., F.M.S. Referees: Mr. Eaton and Mr. Greaves.

2. "A Sketch of the Winds and Weather experienced in the North Atlantic between lats. 30° and 50° during February and March 1880". By Charles Harding, F.M.S. Referees:– Mr. Laughton and Mr. Whipple.

The Council then adjourned.

G. J. Symons

## May 19th 1880

Council Meeting held at 25 Great George Street

Present:- G. J. Symons President in the Chair.

E. E. Dymond, J. K. Laughton, J. H. Gilbert,
C. Greaves, A. Brewin, W. J. Harris,
H. Toynbee, W. Ellis, B. Latham,
H. Perigal, R. Field, R. Strachan
R. H. Scott, F. Gaster, H. S. Tabor.
J. W. Tripe,

Minutes.-
The Minutes of the last Meeting were read and confirmed.

Finance.-
Balance. The Balance was reported to be

| | |
|---|---|
| At Bank | £ 470 - 10 - 2 |
| In hands of Assistant Secretary | 6 - 8 - 10 |
| | £ 476 - 19 - 0 |

The Petty Cash Account having been exceeded by £3-6-0, it was resolved that a cheque for £18-6-0 be drawn for Petty Cash.

Resignation.- The resignation of Mr E. E. Prichard was read and accepted.

Correspondence.

Royal Artillery Institution.- A letter was read from the Secretary forwarding a copy of the receipt for the Life Composition which was as follows:-

"London 29th March 1867

"Received this day of Capt. A. Harrison R.A. acting Secretary of the Royal Artillery Institution, the sum of Ten Pounds, as composition in lieu of annual subscriptions, which entitles the Secretary of the Royal Artillery Institution for the time being to the rights and privileges of a Life Fellow of the Meteorological Society.

"£10-0-0 "Henry Perigal.
" Treasurer"

It was resolved that the letter be acknowledged and that the Secretary be informed that there is no note in the Minutes of the conditions under which the Life Composition was accepted and that the Council had not all the information before them when they passed the resolution of March 17th.

Honorary Members.

The Foreign Secretary submitted the nominations of Senor Antonio Aguilar, and Dr. H. H. Hildebrandsson as Honorary Members. These were approved by the Council and ordered to be laid before the Ordinary Meeting.

Communications.-

Accepted.- The following Papers were, on the recommendation of the Referees, accepted for reading and printing:

1. "Variations in the barometric weight of the lower atmospheric strata in India"

By Prof. E. D. Archibald, M.A., F.M.S.

2. "A Sketch of the Winds and Weather experienced in the North Atlantic between lats. 30° and 50° during February and March 1880".

By Charles Harding, F.M.S.

Referred:- The following Papers were referred as follows:-

1. "Note on a Waterspout observed at Morant Cays, Jamaica, March 23rd. 1880".

By Lieut. A. Carpenter, R.N., F.M.S.

Referees:- Mr. Scott and Capt. Toynbee

2. "The Average Height of the Barometer in London".

By H. S. Eaton, M.A., F.M.S.

Referees:- Mr. Ellis and Mr. Strachan.

3. "The Winter Climate of Davos-Platz, Switzerland".

By C. T. Williams, M.D., F.M.S.

Referees:- Dr. Tripe and Mr. Greaves.

4. "A New Thermograph".
By Wm. D. Bowkett.
Referees:- Mr. Symons and Mr. Latham.
5. "Account of a Balloon Ascent in a Whirlwind, March 23rd 1880".
By Capt. J. Templer and Capt. H. E. Elsdale.
Referees:- Mr. Gaster and Mr. Tabor.

Printing. The following Paper was ordered to be printed:
"On the Greenwich Sunshine Records, 1876-80".
By W. Ellis, F.R.A.S., F.M.S.

International Meteorology.

Conference for Agricultural Meteorology. The Programme of Questions to be submitted to this Conference was read and referred to the General Purposes Committee for consideration and report.

Comparison of Standard Instruments. A circular letter from the International Committee of Meteorology was read announcing the proposal for the comparison of the standard instruments of the various central meteorological institutions.
It was resolved that, as the instruments at the Society's stations are verified at the Kew Observatory, it is unnecessary for the Council to take part in the enterprise.

Winstanley's Radiometer.- Permission was given to Mr. D. Winstanley to exhibit his Radiometer at the Ordinary Meeting.

Loan of Instruments.- The President read a letter which he had received from the Rev. Mr. Craig asking for the loan of instruments for a station in Co. Donegal. The letter was referred to the General Purposes Committee.

The Council then adjourned. G. J. Symons

June 16th 1880

Council Meeting held at 25 Great George Street, S.W.

Present:- G. J. Symons, President, in the Chair,

| | | |
|---|---|---|
| E. E. Dymond, | H. Perigal, | B. Latham, |
| R. H. Scott, | W. Ellis, | R. Strachan |
| J. W. Tripe, | R. Field, | H. S. Tabor |
| J. K. Laughton, | J. H. Gilbert, | G. M. Whipple. |

Minutes.-

The Minutes of the last Meeting were read and confirmed.

Finance.-

Balance - The balance was reported to be

| | |
|---|---|
| At Bank | £ 469 - 15 - 2 |
| In hands of Assistant Secretary | 7 - 9 - 11 |
| Petty cash in hand | 1 - 4 - 0 |
| | £ 478 - 9 - 1 |

It was resolved that a cheque for Petty Cash be drawn for £13-16-0, and that during the recess cheques for Petty cash be drawn by the Treasurer in accordance with the usual course on the 15th of each month.

Bills passed. The following bills were ordered to be paid:-

| | |
|---|---|
| Williams & Strahan - Quarterly Journal No 34. | £38 - 19 - 9 |
| Malby & Sons - Lithography | £15 - 18 - 6 |

Resignations.- The resignations of Lt. Col. J. F. Tennant and Mr. Herbert Walker were read and accepted.

It was resolved that the publications to the end of the current year be sent to all Fellows who resign in that year except when specially stopped.

General Purposes Committee

The following Report was read and adopted:-

"The reports of the Referees being favourable, the Committee has accepted the following Papers for

reading before the Society:-

1. "The Average Height of the Barometer in London";
By H. S. Eaton, M.A., F.M.S.
2. "Note on a Waterspout observed at Morant Cay, Jamaica, March 23rd 1880".
By Lieut. A. Carpenter, R.N., F.M.S.
3. "Account of a Balloon Ascent in a Whirlwind, March 23rd 1880".
By Capt. James Templer.
4. "A new Thermograph".
By William David Bowkett.

"The Committee has referred Mr Dymond's "Humidity Table" to Mr Scott and Mr C. Harding; and has given permission to Mr Winstanley to exhibit his Air Thermometer at the Meeting on the 16th instant.

"The Committee has ordered the Programme of Questions for the Agricultural Meteorological Conference to be printed and copies sent round to the members of Council with a request for their suggestions.

"The Committee recommends that Budden's salary be increased from 8/- per week to 9/- from the beginning of July.

(Signed) G. J. Symons,
Chairman."

Communications.-

Accepted. - The following Papers were accepted for reading and printing:-

1. "On the Winter Climate of Davos"
By C. T. Williams, M.D., F.M.S.
2. "Humidity Table"
By E. E. Dymond, F.M.S.

Mr Dymond's communication was held over till

the November Meeting, and in the mean time was referred back to him for enlargement, and also for an account of its preparation and the method of using it.

Referred.– The following Paper was received and referred:–

"Thermometrical Observations on board Ship".

By Capt. W. F. Caborne, F.M.S.

Referees:– Mr Laughton and Mr Strachan.

Printing.– The question of the printing of the three Plates to accompany Mr C. Harding's Paper "On the Winds and Weather experienced in the North Atlantic during February and March" was referred to the General Purposes Committee with power to act.

Conference for Agricultural Meteorology.

On the motion of Mr Whipple it was resolved that a communication be sent by the Society to the Conference.

A Committee, consisting of the President, Secretaries, Mr Dymond, Mr Ellis, Dr Gilbert, and the Rev. T. A. Preston, was appointed to consider the Programme of Questions and to report what communication shall be sent to the Conference.

International Committee of Meteorology.

A circular was read announcing the Meeting of the International Committee of Meteorology on August 9th at Berne and the questions to be considered.

This circular was referred to the preceding Committee.

Atlantic Weather.

On the motion of Dr Tripe, seconded by Mr Laughton, it was resolved to request the Meteorological Council to undertake a complete discussion of the Meteorology of the North Atlantic during the months of February and March 1880.

MS. Returns for 1879.

Permission was given to Mr. Greaves to borrow the monthly schedules of observations from the Society's stations for 1879.

G J Symons

# Abstract of Receipts and Payments for the half-year ending June 30th and Estimate of Revenue and Expenditure to Decr 31st. 1880.

| Receipts | June £ | s | d | Dec £ | s | d |
|---|---|---|---|---|---|---|
| Balance from 1879 | 150 | 8 | 0 | — | — | — |
| Dividends | 22 | 5 | 4 | 22 | 5 | 4 |
| Meteorological Office:- | | | | | | |
| Monthly Returns | 25 | 0 | 0 | 75 | 0 | 0 |
| Annual " | 2 | 10 | 0 | — | — | — |
| Weekly " | 3 | 15 | 4 | 3 | 3 | 0 |
| Inspection | — | — | — | 25 | 0 | 0 |
| Subscriptions:- | | | | | | |
| 1880 | 272 | 17 | 0 | 25 | 0 | 0 |
| Arrears | 48 | 12 | 0 | 10 | 0 | 0 |
| Entrance Fees | 33 | 0 | 0 | 10 | 0 | 0 |
| Life Compositions | 120 | 0 | 0 | — | — | — |
| Mr Mawley-Publication of observations | — | — | — | 2 | 2 | 0 |
| Sale of Publications | 10 | 18 | 1 | 10 | 0 | 0 |
| | 689 | 5 | 9 | 182 | 10 | 4 |

| Expenditure | | June £ | s | d | Dec £ | s | d |
|---|---|---|---|---|---|---|---|
| Journal.- | Printing & Illustrations | 86 | 17 | 5 | 80 | 0 | 0 |
| | Authors copies | 5 | 14 | 0 | 12 | 0 | 0 |
| | Registrar General's Reports | — | — | — | 7 | 12 | 0 |
| Printing &c.- | General Printing | 8 | 4 | 6 | 7 | 0 | 0 |
| | List of Fellows | 6 | 16 | 0 | — | — | — |
| | Forms &c | 11 | 10 | 6 | 1 | 8 | 0 |
| | Stationery | 3 | 6 | 5 | 5 | 0 | 0 |
| | Books & Bookbinding | 8 | 4 | 9 | 12 | 0 | 0 |
| Salaries.- | Assistant Secretary | 70 | 0 | 0 | 70 | 0 | 0 |
| | Computers | 37 | 8 | 6 | 40 | 19 | 0 |
| Office &c.- | Rent & Housekeeper | 7 | 12 | 2 | 40 | 10 | 0 |
| | Furniture, Coals &c | – | 16 | 10 | 5 | 0 | 0 |
| | Postage | 27 | 18 | 7 | 12 | 0 | 0 |
| | Petty expenses | 1 | 5 | 11 | 5 | 0 | 0 |
| | Refreshments at Meetings | 1 | 1 | 6 | 10 | 0 | 0 |
| Observations.- | Inspection of Stations | — | — | — | 60 | 0 | 0 |
| | Observer at Dartmoor | — | — | — | 3 | 3 | 0 |
| | | 276 | 17 | 1 | 371 | 12 | 0 |
| | Balance in hand, June 30th | 412 | 8 | 8 | | | |
| | Estimated Balance Decr 31st | | | | 223 | 7 | 0 |

July 14th 1880

Council Meeting held at 30 Great George Street, S. W.

Present: — G. J. Symons, President in the Chair,

| | | |
|---|---|---|
| E. E. Dymond, | J. K. Laughton, | B. Latham, |
| C. Greaves, | A. Brewin, | R. J. Lecky, |
| H. Perigal, | W. Ellis, | R. H. Russell |
| S. W. Silver, | R. Field | R. Strachan |
| R. H. Scott, | R. Gaster | G. M. Whipple. |

Minutes. —

The Minutes of the last Meeting were read and confirmed.

Finance. —

The Assistant Secretary submitted the accompanying abstract of the Receipts and Payments for the half year ending June 30th, and an estimate of Revenue and Expenditure to December 31st showing an estimated balance on the latter date of £223 - 7 - 0.

Balance. The Balance in hand was reported to be

| | |
|---|---|
| At Bank | £ 397 - 18 - 11 |
| In hands of Assistant Secretary | - 17 - 4 |
| Do Petty Cash | 4 - 18 - 0 |
| | £ 403 - 14 - 3 |

It was resolved that a cheque for £10 - 2 - 0 be drawn for Petty Cash.

Bill passed. — Messrs Williams & Strahan's bill for Printing and Stationery amounting to £9 - 12 - 3, was ordered to be paid.

Resignation. — The resignation of the Hon. S. Cockburn was read and accepted.

Letter from Dr Hildebrandsson.

A letter was read from Dr Hildebrandsson thanking the Society for the honour conferred upon him of being elected an Honorary Member of the Society.

Communications.

Illustrations. It was resolved that the three Plates illustrating Mr C. Harding's Paper, and the one Plate illustrating Mr Archibald's Paper be printed.

Mr Scott mentioned that Mr Rothery, the Wreck Commissioner had applied to him for some copies of Mr Harding's Paper for the use of the Atalanta Commission; and that he had ordered 12 copies to be struck off at once. . Action approved

Authors' copies.

It was resolved that in addition to the usual number of separate copies of the Papers appearing in No. 35 of the Journal, the following extras be printed:-

1. "On the Greenwich Sunshine Records". By W. Ellis. 25 copies.

2. "Winds and Weather experienced in the North Atlantic during Feb & March 1880". By C. Harding. 50 copies.

Agricultural Meteorology Committee.

The Report of this Committee was read and, after some slight alteration, was adopted as follows:-

"The Committee has carefully considered the Programme of Questions to be discussed at the Conference for the development of Agricultural and Forest Meteorology to be held at Vienna in September, as well as Miss Ormerod's answers to the several questions of the Programme, and recommends that the following replies be sent to the Conference:-

I Q.- What are the mutual relations of the Meteorological elements on Vegetation, not only those which are proved to exist, but those which are theoretically supposed to be probable?

A.- Healthy vegetation depends on due proportion of warmth, moisture and light; in overcast and moist summers there is luxuriant leafage and little flower; in sunny and dry summers leafage is moderate

and flowering great (possibly no great amount of fruit as the plants may be too much dried). These main points are much modified by circumstances that affect the ground temperatures, and these ground temperatures are of great importance as through them the flow of the sap may be retarded or entirely checked, or may be active in one part of the plant, whilst it is exactly the reverse in the other, i.e. above or below ground as the case may be. The importance of this consideration is practically acknowledged by Vine growers, and more information on and practical working of the subject would be of great service in the management of crops. The effect of a mild, overcast and moist summer and autumn or the reverse upon the ripening of the wood of that year and the fruit and leaf buds for the succeeding year is probably considerable and more information on this subject is desirable as also the effect on agricultural seeds, especially with regard to the cereal crops, as exemplified in the bread made from corn harvested in bad seasons (notably in 1839) drawing out into long sticky strings.

With respect to the allegation that the removal of trees from large districts produces a sensible effect on the character and amount of the rainfall and upon the temperature and hygrometry of the district the extent of the British Isles is not sufficiently great to afford positive information.

II. Q. – What observations of Meteorological elements are to be particularly attended to, with especial reference to their influence on Vegetation?

A. – Sunshine, Earth Temperature at depths not exceeding 4 feet, Air Temperature and Range, Humidity, Wind, Rain, and Terrestrial Radiation. Also

Solar Radiation and Evaporation, if satisfactory instruments can be obtained.

III. Q. – How far and in what way can Meteorological observatories and stations, without interfering with their other work, include these observations in their sphere of operations?

A. – The additional data required would not materially increase the work at existing stations.

IV. Q. – Would it not be useful, with a view of establishing special systems of observations, such as for instance, phenological observations, for this object, to prepare general Instructions?

A. – Yes. The Instructions issued by the Society are forwarded herewith.

V. Q. – Can at the present moment Meteorological Central Offices issue Weather Forecasts for the use of Agriculture with reasonable prospects of utility; and if this question be answered in the affirmative, how can the service be organised as fully as possible?

A. – The results of the first experiments in this country by the Meteorological Council are submitted herewith.

The Committee does not considered it necessary for the Council to reply to any of the questions on the circular announcing the Meeting of the International Committee of Meteorology on August 9th 1880 at Berne.

(Signed) G. J. Symons.
Chairman.

Donation to Library.

47 Mr. Greaves having presented to the Society a set of the Journals of the Royal Agricultural Society from 1839 to 1874, the thanks of the Council were voted to him for this valuable donation.

G J Symons

October 20th 1880

Council Meeting held at 30 Great George Street.

Present:- G. J. Symons, President, in the chair,

E. E. Dymond, R. Field, R. Strachan
H. Toynbee, F. Gaster, H. S. Tabor
H. Perigal, J. H. Gilbert, G. M. Whipple.
R. H. Scott, B. Latham
A. Brewin, R. J. Lecky

Minutes.
The Minutes of the last Meeting were read and confirmed.

Finance.-
Balance - The Balance in hand was reported to be

| | |
|---|---|
| At Bank | £ 292 - 10 - 2 |
| In hands of Assistant Secretary | 7 . 18 - 4 |
| | £ 300 - 8 - 6 |

The Petty Cash Account having been exceeded by £7-15-1, it was resolved that a cheque for £27-15-1 be drawn for Petty Cash.

Bills passed. The following bills were ordered to be paid:-

Messrs Williams & Strahan - Journal No 35 - £ 34 - 8 - 9
Messrs Malby & Sons - Lithography - £ 14 - 11 - 0

Fellows.-
Nominations.- The names of the following candidates for admission into the Society were read and their certificates ordered to be suspended:-

George Corden,
Frederic Hepburn, B.A.
Campbell M. Hepworth.
Moses Parry,
Edward P. Phillips.
Henry L. Roth.

Reinstatement of Mr. Usill. — A letter was read from Mr. G. W. Usill requesting to be allowed to re-assume his Fellowship upon payment of all arrears.
It was resolved that Mr. Usill's request be complied with.
Resignation. — The resignation of Mr. W. Paver was read and accepted.
Señor A. Aguilar. — A letter was read from Señor Antonio Aguilar thanking the Society for having elected him an Honorary Member.
Communications. —
Accepted. — On the recommendation of the referees the following Papers were accepted for reading and printing. —

1. Capt. W. F. Caborne. — "Thermometrical Observations on board ship."
2. J. G. Gamble. — "Rainfall in South Africa."
3. H. L. Roth. — "On the Meteorology of Mackay, Queensland."

Referred. — The reports of the referees on Commander R. A. Edwin's paper "On the Principle of New Zealand Weather Forecast", being somewhat different, the Paper was referred to Mr. Ellis.
General Purposes Committee.
The following Report was read: —
1 "Three Papers having been received the Committee has referred them as follows: —
1. H. L. Roth. — "On the Meteorology of Mackay, Queensland."
Referees: — Mr. Laughton and Mr. Silver.
2. J. G. Gamble — "Rainfall in South Africa".
Referees: — Mr. Latham and Dr. Mann.
3. Com. R. A. Edwin. — "On the principle of New Zealand Weather Forecast".
Referees: — Mr. Gaster and Rev. W. C. Ley.
2 The Assistant Secretary's Report on the Inspection of

Stations has been read to the Committee and referred to the Council.

3 The Committee recommends that the Plans of the Climatological Stations be lithographed and inserted in the Quarterly Journal.

4 A letter having been received from Dr Lake stating that the Society could get Climatological stations at Ashburton and Kingsbridge, the Committee recommends that these stations be accepted.

5 The Committee recommends that those elements which are given in the Climatological returns be extracted from the records of the Second Order Stations and incorporated with the Climatological results in the Quarterly Table, the names being given in italics.

(Signed) "G. J. Symons.
Chairman"

X

Paragraphs 1 and 2 were adopted.

Paragraph 3. It was resolved that the Plans of the Climatological Stations should not be printed in the Quarterly Journal.

Paragraph 4. Mr Amery's offer to furnish Climatological observations from Ashburton was accepted. Mr Fox of Kingsbridge declined to observe.

Attention having been called to the fact that the Devonshire Association had decided to give up the collection of meteorological observations, it was considered desirable that an effort should be made to induce to the observers of the Association to continue their observations and to furnish the results to the Society. This matter was referred to the President and Mr Dymond with power to act.

Paragraph 5 was adopted, the new Table to commence with January 1881.

Inspection of Stations - 1880.

The following Report of the Assistant Secretary was read and adopted:-

"The following Second Order and Climatological Stations in the southern half of England have been inspected, have, on the whole, been found in a satisfactory condition, viz. -

| | |
|---|---|
| Aspley Guise | Portsmouth |
| Babbacombe | Ramsgate |
| Bournemouth | Sidmouth |
| Bude | Somerleyton |
| Cheltenham | Southampton |
| Cranleigh | South Bourne |
| Cromer | Strathfield Turgiss |
| Croydon | Swarraton |
| Cullompton | Teignmouth - Bitton |
| Dartmoor | " Woodway |
| Downside | Throcking |
| Eastbourne | Torquay - Castle College |
| Harestock | " Rocombe |
| Hillington | Totnes |
| Ilfracombe | Tunbridge |
| Isleworth | Tunbridge Wells |
| Lowestoft | Ventnor |
| Lymington | Watford |
| Maker | Weston super mare |
| Marlborough | Worthing. |

With regard to the Climatological stations the exposure, with one or two exceptions, is very good and at some of the sea side places is much better than might have been expected. At all the stations except Cromer and Ilfracombe, Stevenson stand or a modification thereof is used. The thermometers which had not recently been verified were compared

with the standards, and their changes of index error (if any) ascertained. At one station where the thermometers had been verified about 12 years ago, it was found that the zero of the dry bulb had risen 0°.6 and that of the wet-bulb 1°.0; the old corrections thus making the locality to appear to be more humid than was actually the case.

"The evaporation of spirit to the top of the tube in the grass minimum thermometer still continues to vitiate the readings of this ~~thermometer~~ instrument, and will doubtless continue to do so until some simple mercurial minimum thermometer has been devised to supersede it.

"All the observers appear to be desirous of co-operating with the Society in its endeavour to collect reliable data for ascertaining the climate of the country, by doing their best to make accurate observations, and by carrying out any suggestions that have been made for their improvement

(Signed) "William Marriott"

Climatological Station at Swanage

The President stated that he had received a letter from Mr. A. North pointing out some of the peculiarities of the climate of Swanage and recommending that a climatological station should be established there. He also stated that Mr. G. Burt would most probably assist to have this carried out.

It was resolved to Mr. Burt be asked to establish a climatological station at Swanage.

Staff

The Assistant Secretary having reported that A. T. Budden would leave on the 23rd instant as he had obtained another situation, it was

decided that another lad be engaged as Computer at 8/- per week.

Donation to the Library.

Mr. Lovell Squire having presented to the Society the MS. Journal of the late Mr. J. Squire, of Epping from 1820-1860, the thanks of the Council were voted to him for this valuable donation.

G. J. Symons

## November 17th 1880.

Council Meeting held at 30 Great George Street.

Present:- G. J. Symons. President, in the Chair.

| | | |
|---|---|---|
| E. E. Dymond | A. Brewin | F. A. R. Russell. |
| C. Greaves. | W. Ellis | R. Strachan |
| H. Perigal | R. Field | H. S. Tabor |
| R. H. Scott | F. Gaster | G. M. Whipple. |
| J. W. Tripe | J. H. Gilbert | |
| J. K. Laughton | R. J. Lecky | |

Minutes.

The Minutes of the last Meeting were read and confirmed.

Balance.

The Balance in hand was reported to be

| | |
|---|---|
| At Bank | £ 287 " 7 " 4 |
| In hands of Assistant Secretary | 3 " 4 " 6 |
| " " " Petty Cash. | 1 " 0 " 3 |
| | £ 291 - 12 - 1 |

It was resolved that a cheque for Petty Cash be drawn for £13-19-9.

Robbery at the Office.

The Assistant Secretary reported that the Clock in the Library was stolen between 2 and 4 p.m. on Saturday, the 6th instant. Information was given to the Police on the following Monday morning and they now have the matter in hand.

It was resolved that a zinc cover be made for the letter box on the Office door, and that a new clock be obtained.

General Purposes Committee.

The following Report was read and adopted:- "The Committee, having considered the reports of the referees on Commander R. A. Edwin's paper "On

the Principle of New Zealand Weather Forecast", recommends that the Paper be sent back to the author with an abstract of the suggestions of the referees.
"Mr Scott has inspected the station at Limavady, but Mr Fawcett the observer will shortly have to give it up.
"In comparing the thermometers the grass-minimum was broken; the Committee therefore recommends that a receipt for the subscription for 1881 be sent to Mr Fawcett in place of a new thermometer.
"The Assistant Secretary having reported that the anemometer at Dartmoor was not in good working order, the Committee has ordered the instrument to be sent up for repair.
"The Committee has accepted Mr J. Lingwood's offer to supply observations for a second order station at Alnwick.
"The Committee has to report that Albert Pycock has been engaged as Computer at a salary of 8/- per week.
(Signed) " G. J. Symons,
"Chairman"

Communications.

Referred.- The following papers were received and referred:-
1. "On the variations of Relative Humidity and Thermometric Dryness of the Air with changes of Barometric Pressure at the Kew Observatory"
By G. M. Whipple, B.Sc., F.R.A.S.
Referees:- Mr Greaves and Mr Gaster.
2. "On the relative frequency of Barometric readings at the Kew Observatory during the 10 years 1870-79"
By G. M. Whipple, B.Sc., F.R.A.S.
Referees:- Mr Lecky and Mr Strachan.

Correspondence.

Ramsgate observations.- A letter was read from the Meteorological Office calling attention to the loss of the

Ramsgate observations for July last, and requesting that the observer be officially communicated with.
It was resolved that a letter be sent to the observer.
Sunshine Records at Llandudno.—A letter was read from the Meteorological Office with reference to a statement that some sunshine cards for September last had been burnt, and requesting that Dr Nicol be communicated with upon the subject.
It was resolved that a letter be sent to Dr Nicol.
International Committee of Meteorology.
A letter from the International Committee of Meteorology, asking for remarks on the carrying out of the resolutions of the Congress at Rome, was read and referred to the General Purposes Committee.
Stations.
Swanage. The Assistant Secretary stated that Mr Burt had called upon him and had undertaken to purchase the necessary instruments and start a Climatological station at Swanage.
Mr Burt's offer was accepted with thanks.
Devonshire Association Stations.
The President stated that he had written to all the late observers of the Devonshire Association who did not report to the Society, asking them to continue their observations and furnish them to the Society, but only one reply had been received which was unfavourable.
Seathwaite.
The President having called attention to the desirability of having a Climatological Station at Seathwaite, it was resolved, on the motion of Mr Dymond, "That it be referred to the General Purposes Committee to establish a Climatological station at Seathwaite if possible, at a cost not exceeding £7 for outfit and

£2-2-0 per annum for maintenance, and that the Assistant Secretary be instructed to visit Seathwaite for that purpose."

Encyclopedia Brittanica.

On the motion of Dr. Tripe it was resolved that the Encyclopedia Brittanica be bought for the Library.

G J Symons

December 15th 1880.

Council Meeting held at 25 Great George Street.

Present:- G. J. Symons, President, in the Chair.

| | | |
|---|---|---|
| E. E. Dymond | A. Brewin | R. J. Lecky. |
| C. Greaves, | W. Ellis, | F. A. R. Russell. |
| H. Perigal | R. Field | R. Strachan |
| R. H. Scott | F. Gaster | H. S. Tabor |
| J. W. Tripe | J. H. Gilbert | G. M. Whipple. |
| J. K. Laughton | B. Latham, | |

Minutes.

The Minutes of the last Meeting were read and confirmed.

Finance.-

Balance - The Balance in hand was reported to be

| | |
|---|---|
| At Bank | £279 - 10 - 6 |
| In hands of the Assistant Secretary | 2 - 15 - 0 |
| | £ 282 - 5 - 6 |

The Petty Cash Account having been exceeded by £2-19-0, it was resolved that a cheque for £22-19-0 be drawn for Petty Cash.

Bills - The following bills were ordered to be paid:-

| | |
|---|---|
| 1. Williams & Strahan - Journal No. 36 | £42 - 13 - 6 |
| 2 Eyre & Spottiswoode - Quarterly Returns | 7 - 12 - 0 |
| 3. Beardmore & Barnes - Rent | 33 - 0 - 0 |
| 4. J. Jennings - Refreshments | 9 - 10 - 0 |
| 5. L. P. Casella - Instruments - Not to exceed | 7 - 0 - 0 |

Resignations:-

The resignations of Dr. J. Mitchell and R. E. Power were read and accepted.

General Purposes Committee.

The following Report was read and adopted:-

"The reports of the referees being favourable the Committee has accepted both of Mr. Whipple's papers,

viz 1. "On the variations of Relative Humidity and Thermometric Dryness of the air with changes of barometric pressure at the Kew Observatory"; and 2. "On the relative frequency of given heights of the Barometer readings at the Kew Observatory during the 10 years 1870-79.

"The Committee has to report that a letter has been received from the Meteorological Office, stating that the Meteorological Council have granted the sum of £25 towards the expense of defraying the cost of inspecting the Society's stations during the current year.

"The Committee, having learned that the proposed observers at Seathwaite are capable and willing to observe for the Society, has ordered a set of instruments and instructed the Assistant Secretary to visit the place and see the station properly equipped.

"The Committee has accepted offers to supply Climatological observations from Macclesfield, Rounton Grange, and South Norwood.

"The Committee has considered the question of salaries for next year and recommends that the following amounts be paid viz:- Mr. Marriott £150; E. J. Horstman 15/- per week; T. C. Lewis 12/- per week; and A. Pycock 8/- per week.

"The Committee has considered the draft of the Report of the Council, and ordered it to be set up in type, and a copy forwarded to each Member of Council.

"The Committee has considered the letter from the International Committee of Meteorology, and has directed that an answer be sent to it.

(Signed) "G. J. Symons,
"Chairman"

Correspondence.

Atlas of Meteorological Charts. - A letter was read from Mr. Scott stating that the Meteorological Council were contemplating the preparation of an Atlas showing the

mean meteorological features of the British Isles, and asking whether the Council would sanction Mr. Marriott's undertaking the work:- due recognition being made.

It was resolved that Mr. Marriott have full permission to undertake the work and to make use of all the material collected by the Society.

Conference on Agricultural Meteorology.- A letter was read from Mr. Scott forwarding a copy of the Report, with Appendices, of the Conference for Agricultural Meteorology held at Vienna in September last.

Discontinuance of Kelstern.- A letter was read from Mr. Briggs stating that as he would be leaving Kelstern in March next, he would be unable to send the monthly reports after the end of this month.

It was resolved that Mr. B. Briggs, of Calcethorpe, be asked to continue the observations.

Communications.-

Paper received:- Attention having been called to a printed letter by Mr. Greaves addressed to the General Purposes Committee and other Members of the Council on the subject of "Relative Humidity", it was resolved that the Letter be received as a Paper and ~~read~~ referred in the usual way.

Illustrations.- It was resolved that maps of South Africa and Queensland be lithographed to illustrate Mr. Gamble's and Mr. Roth's Papers.

Purchase of Stock.

On the motion of Dr. Tripe it was resolved that the sum of £70 be invested in New 3 Per Cents.

Instructions to Observers.-

On the motion of Mr. Dymond it was resolved "that it is desirable for the Council to prepare for publication a short paper of Instructions in the use of Instruments with a few simple Tables for the

purposes of Climatological observers and others".
It was referred to the General Purposes Committee to prepare these Instructions.

Officers and Council for 1881.

The following List of Officers and Council for the ensuing year was adopted:-

# BALLOTING LIST.

**WEDNESDAY EVENING, JANUARY 19, 1881.**

*TO BE PRESENTED IN PERSON ONLY.*

| Attendances at Meetings. Council. Nine Meetings. | Attendances at Meetings. Ordinary. Seven Meetings. | |
|---|---|---|
| | | *PRESIDENT.—One name to be returned.* |
| 9 | 7 | George James Symons, F.R.S. |
| | | *VICE-PRESIDENTS.—Four names to be returned.* |
| 9 | 7 | Edward Ernest Dymond |
| 8 | 7 | *William Ellis, F.R.A.S.* |
| 8 | 7 | *Joseph Henry Gilbert, Ph.D., F.R.S., F.C.S.* |
| 5 | 4 | Charles Greaves, M.Inst. C.E., F.G.S. |
| | | *TREASURER.—One name to be returned.* |
| 9 | 7 | Henry Perigal, F.R.A.S. |
| | | *TRUSTEES.—Two names to be returned.* |
| 1 | 1 | Sir Antonio Brady, F.G.S. |
| 1 | 0 | Stephen William Silver, F.R.G.S. |
| | | *SECRETARIES.—Two names to be returned.* |
| 9 | 7 | Robert Henry Scott, M.A., F.R.S., F.G.S. |
| 7 | 7 | John William Tripe, M.D., M.R.C.P.E., V.P. Soc. Analysts |
| | | *FOREIGN SECRETARY.—One name to be returned.* |
| 8 | 7 | John Knox Laughton, M.A., F.R.A.S., F.R.G.S. |
| | | *COUNCIL.—Twelve names to be returned.* |
| — | — | *Edward Douglas Archibald, M.A.* |
| 6 | 2 | Arthur Brewin, F.R.A.S. |
| — | — | *Henry Storks Eaton, M.A.* |
| 9 | 7 | Rogers Field, B.A., M. Inst. C.E. |
| 8 | 5 | Frederic Gaster |
| 7 | 5 | Baldwin Latham, M.Inst.C.E., F.G.S. |
| 5 | 3 | Robert John Lecky, F.R.A.S. |
| — | — | *Edward Mawley* |
| 5 | 4 | Hon. Francis Albert Rollo Russell, M.A. |
| 9 | 7 | Richard Strachan |
| 8 | 6 | George Mathews Whipple, B.Sc., F.R.A.S. |
| — | — | *Charles Theodore Williams, M.A., M.D., F.R.C.P.* |

*N.B.—The names of newly proposed Officers and Members of Council are printed in italics.*

Report of the Council.

The draft of the Report of the Council was read and after some slight alterations adopted.

G J Symons